

# Pathfinders for Change

*New World Citizens - New Evolutionaries*

## Part 2 - New Insights and Ideas on Evolution

### Summary

On waking in the morning we may well wonder about the weather or what we have to do, but it is unlikely we'll be wondering in what way the human race is evolving today. However a cascade of new indications about evolution in general and human evolution in particular, indicates that from now on it may well be an important consideration for us all.

Theories of evolution have swung from one extreme to the other in the last two hundred years. Among more faith based 'creation stories' across many world cultures, there are many examples of conscious intervention by a creator who 'invented' the world in a few days, such as the events described in biblical teachings. By contrast 20<sup>th</sup> century science, which now has wide credence, tells us that creation and evolution are very different from these creation myths and are, in fact, more the results of chance taking place over billions of years in a 'blind' universe.



In the world today we as World Citizens we are beset with a wide range of critical issues that threaten the continuation of our civilisation, all of which suggest that the evolution of a new consciousness and new spirituality are vitally needed if humans are to rise to the challenge of the future. However both seemingly opposite views of evolution (creation stories vs. Darwinian evolution) present us with a conundrum. They both suggest that any new evolutionary upsurge in the near future is impossible or highly improbable.

But is there is a way? As we move into the 21<sup>st</sup> century, a new synthesis of leading edge science and older spiritual traditions is appearing that suggest a fascinating progression in thought This may well have important implications on our future and indicate that significant evolutionary advances could be possible for humans today.

### Evolution - Up or Down Causation?

Theories of evolution can be grouped in different ways, but one which may be helpful is to see them as 'downward causation' ('top down') or 'upward causation' ('bottom up'). Historically most people espoused the 'top down' view in which the whole universe, let alone our planet Earth, was created in 'days' by a powerful Creation Causer or God. This appears in numerous creation stories worldwide for example in the Bible. Mostly



these creation stories are now viewed as spiritual allegories, but sometimes they are still viewed as literal truth, which thus may or may not conflict with the growing scientific 'creation story'.

Whatever the timing or process, essentially all 'stories' perceived that there was a 'consciousness' at the heart of the universe that influenced creation processes in a 'top down' way,

This view has broadly given way in the last two hundred years to a much more science-based view, and most now accept the evidence that the evolution of the universe, the planet and humans took place over billions of years, but still in a most awe-inspiring way. This has however become a very materialistic view at the other extreme and the ultimate 'bottom up' view. For science of the 20<sup>th</sup> century also proposed that everything evolved by sequences of chance aided (in life forms) by a survival urge or process of natural selection, together with random genetic mutations. This view theorises no God, no Creation Causer, no consciousness or intelligence of any kind at the core of universal processes.. The religious or faith-based view and the 'realistic' scientific view would appear therefore to have no common ground.

### Evolution Today? Seems Impossible?

Considering today's many problems, and given that major evolutionary updates and improvements are part of the human heritage, should we not seek for further significant evolutionary events in the realms of consciousness and values today? Unfortunately both the paradigms that have been discussed above would seem to make such a possibility impossible or improbable or suggest that a solution is even partially in our own hands.



In the worlds creation stories evolution of the human was a one-time event in the past and is not perceived as a continuous process of update and so no new evolution is envisaged. Even in the scientific perspective that holds sway today, such updates though they do clearly occur, are governed by the right chance processes in the genes.... which may be anytime or never. But in fact, views of evolution are evolving themselves and a fascinating new paradigm is appearing.

### An Evolving Scientific Perspective

We are all aware of the Darwinian revolution which together with the work of many other scientists began to reveal that our universe is in reality billions of years old, and that life on earth (and indeed the universe itself) has appeared through a long process of evolution and development from one stage to another. This view is quite awe-inspiring on its own account, and is now widely accepted; after all, we can all see the evidence for ourselves when we look at fossilised life forms found in rock sequences millions of years old from around the world, for example in cliffs and mountains.



This has shown us 'what' has happened – the revelation of the evolution process, that Darwin was prominent in discovering. But there is an entirely separate issue – 'how' this all took place. As mentioned above, 20<sup>th</sup> century theories of evolution explained this *entirely* through chance effects and 'natural selection' combined with the random genetic mutations, a totally materialistic philosophy of 'upwards causation' which effectively occurs through

'blind' accidental process amongst basic 'physical' elements and particles. But as evidence has

accumulated of the complexity of the universe and life, can this simplistic explanation be all there is to it?

## Some Key Issues in Evolution Theory.

Universal evolution, and human evolution *did* happen of course – we are here! When Darwin famously identified that that finches' beaks were different on different islands in the Galapagos, he identified a truism: that life forms have small variations, which accumulate, and those forms better suited to survive will indeed survive better. But can this obvious causer of more local differences also create vast leaps in evolutionary development? Here are four issues amongst several that raise significant doubts.

### *How did life begin?*

Consider that critical moment in our universe.. it was the turning point when living organic life first appeared from 'dead' inorganic matter and elements. In the 20<sup>th</sup> century it seemed almost a scientific given that this occurrence wasn't that difficult to achieve. There was the famous



experiment whereby an, an atmosphere, designed to mimic the earth's at an early phase, was created in a test tube. The concept was to add the kinds of chemical that would have been present during this period, then, chuck in some energy in the form of an electric charge and lo – we would have instantaneously created complex molecules well on the way to life as we know it!

As it turns out even the most basic forms of life on this planet - bacteria- are stunningly complex, an example of what is often called 'irreducible complexity', which means that for them to 'appear' by chance it would require a whole range of rare and improbable events to take place – *all at the same time and in the right sequence* – not just an odd one here or there over eons of time. And this is at best vanishingly improbable, and more likely impossible - just by 'blind' chance.

### *How did life on the Planet appear so quickly?*

Chance also suggests a long period of failed sequences and attempts, before success; and after all our world is 4.6 billion years old so that was a fair amount of time in which chance could operate; 3 possibly 4 billion years? But scientists have now discovered that as the earth cooled down and water – critical for life – started appearing, living bacteria appeared almost immediately on the planet about as early as it was *conceivably possible*, 4 billion years ago or more. This is the *opposite* of what one would expect if long experimental processes of random chance were the only influence.

### *Why slow periods and then dramatic surges?*

Evolution only through accidental mutations suggests a slow continuous process over time, and indeed to some extent that is seen in fossil records. But this type of change would not be expected to show dramatic evolution leaps. Yet leaps are exactly what we find happening continuously; for example in human history *homo erectus*, a remarkable and dramatic advance in human evolution appeared amongst other homo species remarkably suddenly around 1.8 million years ago – yet the significant advance in tool making they showed did not change at all for the next million years. These kinds of examples are so significant that evolution has been described as '*punctuated equilibrium*'. This kind of discovery started to indicate that that *two* not *one* process were at play, Darwin's 'natural selection' operating in the background while another more fundamental process allowed these evolutionary surges.

### *Can genetic mistakes create a human being?*

Finally there is the influence of critical 'genetic mutations' to consider. In fact 'mutations' may be too generous a word. What is actually being talked about is the copying mistakes that occur when genetic material replicates – not positive advances. Indeed, as you would expect, these mistakes are almost invariably damaging – as we know from the many diseases today that are caused by them today. It has been calculated that only one mutation in perhaps as many as 20 million can be expected to produce positive by chance. So, as with the beginnings of life noted above, many genetic updates clearly require a whole range of rare and improbable changes to occur at the right time and in the right order. We are again approaching the same kind of 'impossibility' mentioned earlier: can the staggering complexity of humans have evolved *only* through a process of chance mistakes in the genes?



## **New Insights Appearing**

As science discovers that all life forms are more complex, irreducibly complex, than originally thought, it moves further away from, rather than closer to, substantiating that natural selection and chance mutations, can be the *only* mechanism at play in evolution. It is now urgently necessary to develop better ideas and paradigms for how these amazing evolutionary process take place at all levels.

So are there *new* insights appearing in the 21<sup>st</sup> century that propose a third way of advancement and evolutionary update? Yes there are. Since the end of the 20<sup>th</sup> century and the arising of the 21<sup>st</sup>, fascinating new discoveries have been made that have indicated very different views on how our universe works and the kinds of processes that may lie at the heart of it. There are at least three key new paradigms relate to the primacy of consciousness within universal processes, the existence of an underlying cosmic template or plenum, and the non-local coherence or interconnectedness of the universe and all within it.

### **The Primacy of Consciousness**

In the '**Upward Causation**' world consciousness is almost an afterthought. Original particles lead to atoms, which lead to molecules and then living cells, and then to brains, and finally, perhaps after billions of years, consciousness appears. And only in small pockets of the universe where such 'brains' exist. But in the revolution that is occurring, the position of consciousness is being completely reversed. For it is now appearing from quantum experiments that our supposed brain 'artefact' is actually a conscious observer that has the power to mediate and change the process and appearance of the most fundamental particles in the universe. Indeed, it now seems that consciousness lies at a deeper level in the universe than the elementary particles that it mediates, and can be seen in a sense as the 'originating ground of all being'.



If this is true of the universe from elementary particles to humans, then science has rediscovered the creation causer of the older spiritual traditions. ***Consciousness now reappears as a powerful downward causation process, and an orchestrating source from the heart of the universe.***

### **The Cosmic Template**

We all know that universal laws and processes apply here on Earth, just as everywhere else. You only have to drop a cup to realise the power of gravity, a power that drives galaxies and the universe as much as our lives. But is all this just a chance artefact of some 'big bang' within the origin of our own particular universe? It seems not, for it is now being discovered that this universe arises from an even deeper basement process, sometimes called the cosmic vacuum, but more properly called the cosmic plenum, which is in a very real sense the source of this universe and must contain the template for its emergence, structure, and all its natural laws.

Yet again it now seems that human life and the universe in which we live are not some fascinating but chance artefact of a convergence of particles, but rather they both arise from a deeper substrate that carry the design and template of its manifestation. So yet again the leading edge discoveries of science reconnect to the concepts of earlier spiritual traditions.

### **The Interconnected Universe**

The 20<sup>th</sup> century view was that all organisms in the world and universe are isolated objects that can only intercommunicate via limited pathways and are subject strictly to time and space. This simplistic view is however being dramatically overturned and it is now being discovered that there is an extraordinary coherence throughout the universe, in which deeper underlying interconnections are fundamental, throughout and are virtually instantaneous between all parts – rather like a hologram.



This means in our human world that far from being just isolated individual lives, there is a underlying continuous connection, energy and information that flows between us and all aspects of our environment, which may well reach well beyond classical sight and sound.

### **The New Human Possibilities**

#### **Evolution - Downward Causation? Upward Causation? Or Both?**

Already the evidence that has appeared in the exploration of evolution has indicated that two processes are at play simultaneously. Certainly there is an 'upward' urge from life to succeed and to adapt and grow to fulfil its potential, and this contains a basic instinct to survive. But far more important is the appearance of waves and cycles of evolutionary update that create dramatic changes and updates in life on our planet, including humans. Evolution can only be understood when these two processes are both taken into account.

The new paradigms confirm this to be the case, with a downward causation arising from the universal template, the universal consciousness that in a sense orchestrates the overall formation and changes of universal evolution, or the evolution of life This acts together with an upward

causation life seeks out new possibilities and elevations. Finally it seems that the appearance of life itself can be understood as the manifestation of the results of an orchestrating principle acting within the media of an evolving planet.

## **Remaking Our World**

In terms of our own future, as individual and members of the human race, there is a far greater potential than previously thought to shape the world around us. We live in a purposeful world arising from an underlying template, in which consciousness is a fundamental principle, interconnection with all things is continuous and instantaneous, and in which we can engage in many ways with local and universal processes to remake ourselves and our future. Our very thought processes, values and intentions in concert with other humans, other life forms and universe itself can powerfully shape our future, both individually and collectively.

## **The Evolving Human**

This in itself is a remarkable new insight, and brings us in some ways full circle with the world's great spiritual traditions, yet within a new updated framework. It also says far more – about the human potential for further evolution updates – the kind of dramatic updates for which there is overwhelming evidence in the past. This is particularly so because evolution has not 'finished' or is simply subject to chance.

Evolution is an intelligent process originating from a universal consciousness and design template that underlies all processes within the universe, and which transcends down through the universe and through life, and provides waves of update possibilities and renewal. We are not just passive onlookers on past events, or just battling to survive, but are critical players in the process whose own intelligence is a decentralised part of and connected to a unified universal process.



## **Human Evolution – A Symbiosis Between Us and the Universe**

So as we look at our world today, our attitudes to what we see and the changes we make to our values and world view, and refine the actions they take, we can cause ripples on a far larger stage. And as the downward causation of universal evolutionary update continues as it has for millions of years, it is these very thought processes and alignments that can make connections to this universal influence and join these two processes (upwards-moving human urge and downward washing intelligence) that can together trigger the next evolutionary possibility.

So now when we as World Citizens seek pathways to an evolution of consciousness and spirituality today, we can see that our individual efforts can interconnect with our companions on this planet, and each day unlock further connections to universal possibilities for update and evolution, that are inherent in the way our universe works. Indeed we may well ask in which way are we and the human race evolving today.