

Life Without Evolution

*A Comprehensive Deconstruction of Darwin's Creation Story
Presented in 3 Research Essays.
And Introducing an Alternative, the Creationary Synthesis.*

By Nicolas Spencer Brown

***Introduction
And Positing of Essential Arguments***

*There are more things in Heaven and Earth, Horatio, than are dreamt of in
your philosophy.*

Shakespeare's Hamlet

*It is not certain that every truth concerning nature is scientifically
demonstrable: scientific demonstration as well as reason may not have
anything valid to say about what experience indemonstrably suggests.*

Etienne Gilson, From Aristotle to Darwin and Back Again, 1971.

Preface to the Essays

These essays are in support of the minority argument that the process of Darwinian evolution (natural selection acting on chance variation) fails to provide a plausible explanation for the origins of biological complexity and higher level biodiversity. Without a viable mechanism, the status of evolutionary theory is greatly diminished. Challenges to the adequacy of the established model of common descent through the gradual accumulation of small genetic mutations, do not simply come from advocates of creationism and intelligent design; but also from theorists and researchers within the biological sciences who call for an expansion or replacement of old ideas. Yet no alternative mechanism for building the extraordinary structural variety of living forms has been convincingly demonstrated, suggesting that the mystery of biological origins continues to elude material science.

The research essays further support the view that the prevailing evolutionary global paradigm is rooted more in materialistic philosophy than in empirical science, and is therefore wholly incompatible with all forms of religious and spiritual learning. Darwinian ‘explanations’ for the workings of the human mind and for conscious experience – the focus of evolutionary psychology – are largely pseudoscientific, based on fictional accounts that can be neither tested nor falsified by any rigorous scientific method.

It is generally accepted that material science has so far failed in its attempt to uncover a satisfactory account of the origin of first life. But there remains an overwhelming resistance towards admitting science’s failure in describing the origin of the genetic code, the origin of biological complexity, the origin of higher rank biodiversity, and the origin of conscious mind. A commonly held conviction that physical science can and will explain all these things has misled many into believing that it actually has. Yet for those who believe in – or know of – any kind of spiritual existence, whether it be God, an afterlife, reincarnation, an eternal soul, or just some kind of impersonal cosmic consciousness or purpose, the materialistic dream of one day understanding all phenomena and all experiences in mechanistic terms must be a delusory ambition.

Proponents of intelligent design and progressive creation (and to some extent natural teleology and vitalism), do not today believe that every specie was created out of thin air, never subsequently to undergo any change at all. Rather, there was a long developmental history to life brought about by both physical and transcendent forces working together. This is what Alfred Russel Wallace (cofounder of the theory of natural selection) believed, and what I am now rejuvenating as the *Creationary Synthesis*. The founding principle of the Creationary Synthesis is the perception that reality consists of both material and immaterial existence, so that the origins of *all existence* could not be attributed to material causality alone. This is not a scientific theory; it is a philosophical approach that recognises the limitations of the scientific method. The synthesis therefore emerges from a two-pronged argument, firstly in challenging the potency of the Darwinian model, and secondly in asserting that no purely physical explanation of life’s origins is possible in any case. To those with an open-minded disposition and a high regard for humility, it offers a solution to the entrenched warfare between evolutionists and creationists.

Ever since the conquest of hearts and minds by Darwinian evolutionary philosophy, which began to take hold in the West in the 1860s, matured with the development of the *Modern Evolutionary Synthesis* through the 1920s, 30s and 40s, and culminated in the arrival of the ‘selfish gene’ in the 1970s, innumerable authors have questioned its mechanistic principles from the points of view of a wide range of disciplines. What is perhaps unique in the content of the following essays is the focus on language; in particular, the manipulation of language to blur the boundaries between fact, theory and belief, in order to support an institutionalised dogma. The term ‘evolution’ has become so loaded with philosophical and pseudoscientific baggage, that it no longer has any clear and precise meaning in either science or philosophy. The conclusion drawn, which will feel unpalatable to some but liberating to others, is that a better understanding of life – whether it be the history of life, contemporary biology, or the meaning of your own life – is achieved by avoiding the word ‘evolution’ altogether. By rejecting the cynical and materialistic Darwinian scientific paradigm that has surreptitiously infected global humanity, the reward is to rediscover the spiritual magic and mystery that permeates life and your own life; to rediscover ‘life without evolution’.

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A note about spelling – While language evolves in company with rapid social change, the formal spelling of words now remains anachronistically frozen in time and in history (it was not always so). This is unfortunate, because standard spelling in the English language is given to be illogical and unnecessarily lengthy. In daring to break with convention, I have introduced throughout this written work a few suggested spelling updates, hoping that others will take courage and follow suit for the benefit of future generations. As an example, I use ‘species’ only as a plural and ‘specie’ as the singular form. Occasionally I use ‘short spelling’, as in ‘tho’ instead of ‘though’ and ‘altho’ instead of ‘although’. I also use a mix of UK and US spellings.

- Life Without Evolution -
Introduction and Positing of Essential Arguments

Abstract

Dissatisfaction with the neo-Darwinian model of evolution is being increasingly and openly expressed in academic and popular literature, and a diversity of thinkers and writers continue to assert that evolutionary ‘science’ is far from philosophy-free. The traditional origins debate between Darwinian evolution and Genesis Creation is familiar but ever divisive, leading many into seeking more expansive and harmonious ways of understanding the existence of life. Those who put ultimate faith in ‘pure science’ fail to appreciate that the scientific method is itself founded upon certain philosophical assumptions, that material science cannot investigate the metaphysical, and that the application of science and technology does not always point in the direction of enlightenment. Faith in the ‘power’ of natural selection has also reached delusional proportions, and the Darwinian evolutionary worldview has seeded a degrading and nihilistic perspective on humanity. A more positive, fulfilling, and realistic comprehension of the living world is offered by the Creationary synthesis.

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The Evolutionary World View

Historians, philosophers, sociologists and scientists all point to one book that, more than any other, changed the way humanity understood its own existence: Charles Darwin's *On the Origin of Species*, first published in 1859. Human beings could no longer be regarded as the intentional creation of a divine mind, and now appeared to be merely the result of purposeless natural forces playing upon chance. The position of *Homo sapiens* as 'special' or 'privileged' in the hierarchy of nature became demoted to 'the ape that got lucky'. And the implications were not to end there, for it was not only the physical attributes of animals that had arisen through adaptation, but the higher mental faculties too. Virtues such as morality, altruism, and even love, had no realism, and existed as a function of their bare survival benefits. Ultimately we were to discover that our totality – mind and body – represented the outward expression of chemical genes, which now replaced God as the choreographers of life. Such is the mastery of these molecular units, that free will cannot endure as a concept, and consciousness itself is believed to be all but illusion. The human essence is reduced to the hard logic of genes and memes, and no longer to an ethereal soul. This is the established evolutionary world view that has come to dominate contemporary science and philosophy, and has also profoundly influenced everyday popular thinking.

The idea of evolution, formerly known as 'transformism' or 'progressive development', was conceived of by others before Darwin; but it was the mechanism he named *natural selection* that convinced people that the mutability of species was a feasible possibility. Much has been clarified and expanded upon in the two centuries since *The Origin* was released upon the world, but natural selection remains the foundation of evolutionary theory. Yet doubts and problems persist with this framework. While many have applauded natural selection as one of the greatest ideas ever to have emerged in the history of human thought, others are far less convinced of its scientific explanatory power. Simply put, selection can only select from what is already there. No gene, trait or variation is generated by natural selection, and the first member of each new specie must already exist before it can be preserved and allowed to multiply. An old teaser directed at the doctrine of natural selection is being increasingly heard again today: selection explains survival, but not the arrival!

The modern evolutionary synthesis of natural selection and genetics, still frequently referred to as neo-Darwinism, identifies *mutation* as the source of all variation. But there are difficulties with this supposition as well. It has so far proven impossible to demonstrate that complex, integrated biological systems can arise through the gradual accumulation of small genetic changes.

Another central element of evolutionary theory is the principle of *universal common ancestry*: the notion that all living forms descended from one single primordial unicellular organism, through transmutation and divergence brought about by natural law processes. This is no unreasonable hypothesis to advance when considering lines of development from the most simple to the most complex; but the process requires a verifiable mechanism, and if selection and mutation fail to fulfil that requirement, no alternative proposal is currently available.

The primary aim of *Life Without Evolution* is to support and build upon the efforts of many previous authors in detailing the explanatory gaps in neo-Darwinian theory, and exposing the inflated intellectual confidence it seems to feed. The conventionally understood mechanism of Darwinian survival is at best an inadequate account of biological origins, and at worst a confection of pseudoscience. Consequently, we should not be basing world views about the meaning of life and the significance of

humanity on a train of false assumptions. A second, but no less important argument echoed in this work, is that evolutionary ‘theory’ is premised as much upon philosophy as upon natural science, and the philosophy it follows is antithetical to all forms of religious and spiritual thinking. For Christians, this means that the idea of a blind, mindless, undirected creation, cannot rationally coexist with the idea of a forward-planning, miracle-performing, designer god.

It is not within my ability to offer any empirical or theoretical alternative for the origins of the biosphere, just as I could not account for the origins of the cosmos itself. I state only, and with due humility, that questions of ultimate existence remain a mystery, and one that will never be completely revealed by material science alone. However, one intriguing question remains that can be addressed with worldly wisdom. If evolution is a flawed theory, then why do the great majority of scientists, and, apparently, a fair majority of religious adherents, maintain faith in it?

No Controversy?

“There is no controversy about evolution within science” is the line resolutely pronounced by spokespersons for the public understanding of science. For example, the Smithsonian National Museum of Natural History (USA)¹ informs enquirers that, “There is no scientific controversy about whether evolution occurred or whether it explains the history of life.” The laws of biology, science teachers unwaveringly reaffirm, have decreed that evolution is a fact, and that the primary mechanism of evolution – natural selection – has been satisfactorily explained and repeatedly observed. Evolution is not questioned by any scientist, official sources maintain, only by religious people.

And yet anyone committed to a more thorough research of the scientific literature will discover that a significant minority of biologists, geneticists and paleontologists continue to question the accepted mechanism of evolution. So it is not quite true to say there is *no* controversy about evolution in science, or to claim that the mechanism of evolutionary change has been established beyond doubt. Challenges to evolutionary theory have always arisen from within the sciences, as well as without.

But there is a far greater implication here. If a proportion of legitimate scientists doubt the adequacy of long held mechanistic theories, then the scientific certainty ascribed to evolution – as a unified explanatory whole – begins to dissolve. This line of thinking becomes increasingly more uncomfortable for those devoted to the evolution-has-all-been-explained school. Persisting doubts within science about *how* evolution could have happened will inevitably perpetuate doubts beyond science about *whether* evolution could have happened. Polls taken in America and Europe consistently show (for whatever reasons) that sizable percentages of the population do not accept, to some extent or other, accounts of evolution. For fear of spreading further doubt, members of the evolution fraternity (whose careers and reputations depend on the credibility of their science) have a clear motive for suppressing controversy within their ranks, and for extending this censorship to the education system and the public arena.

The usual presentation of evolution as ‘more or less explained with only the details missing’, is not an opinion shared by all. By bringing out into the open dissenting views, competing theories and disputed topics concerning, not merely the minor details,

¹ Ref: humanorigins.si.edu/education/frequently-asked-questions (accessed 2024).

but some of the major tenets of evolutionary teaching, it is my hope to encourage other independent thinkers to form a rather different, and more honest opinion of the science.

I should state clearly at the outset that most of the quotations I use from scientific and educational sources relate to debates and disagreements about how evolution happens, and not about if evolution happens. Authors and researchers who diverge from the orthodox view are not usually questioning what they perceive to be the ‘fact’ of evolution. Yet it is this notion of ‘fact’ that is so troublesome. If the process of evolution is still unexplained, then in what sense is it a fact? It means little to simply declare “evolution happened” when what happened is unknown; or to concede that “life must have evolved somehow”, a thought hardly more profound than “life must have got here somehow”. Such bland truisms elucidate nothing! More than two centuries after Jean-Baptiste Lamarck proposed the first reasoned theory of transformism, biology is still searching for a general theory of origins that does *not* attract controversy.

“Some of the basic assumptions that underlie the conceptual structure of the present view of biology are inconsistent with the evidence. Inconsistency in science is no great sin... But I see a series of inconsistencies adding up to a need for major revision.”

Brian Goodwin, Professor of Biology, Schumacher College, *How the Leopard Changed Its Spots: The Evolution of Complexity*, p33-34, 2001.

“In recent years we’ve seen increasing numbers of biologists who are dissatisfied with the conventional (“Neo-Darwinian”) evolutionary theory – biologists who, it would appear, are also unhappy with the resistance of an entrenched scientific establishment to the consideration of new ideas.”

Stephen L. Talbott, Senior Researcher, The Nature Institute, *Evolution: A Third Way? In Context*, No 33, p5-6, 2015.

“A new wave of scientists argue that mainstream evolutionary theory needs an urgent overhaul. Their opponents have dismissed them as misguided careerists – and the conflict may determine the future of biology.”

Stephen Buranyi, science writer, *The Guardian*, 28 June 2022.

“It’s time to stop pretending that, give or take a few bits and pieces, we know how life works. Instead, we must let our ideas evolve as more discoveries are made in the coming decades. Sitting in uncertainty, while working to make those discoveries, will be biology’s great task for the twenty-first century.”

Denis Noble, Professor of Biology, Oxford University, *Genes are not the blueprint for life, Nature* 626, p255, 2024.

Evolution versus Creation: A False Dilemma

The origins debate today is still largely rehearsed exactly as it was presented by Charles Darwin in the Victorian era: an argument supporting the mutability of species through natural selection, against the traditional Genesis account of special creation by God. Either you accept evolution according to Darwin, or you are a Bible creationist: this is the ‘with us or against us’ or false dilemma fallacy. While there are still many who hold uncompromising and highly polarised positions in this classical argument, vociferous evangelism from both sides should not prevent quiet consideration of other possibilities. Materialists may legitimately protest that all opinions on origins remain

divisible into those that confine themselves to physical and chemical causes (evolution), and those that do not (creation). Yet that distinction is not always so clear. Phenomena such as dark matter and quantum entanglement have brought into question exactly what is meant by ‘physical causes’, given that these phenomena appear to be decidedly metaphysical in nature. I would therefore divide alternative viewpoints on origins not into two, but into three essential categories:

Extension or replacement of established theory. Biodiversity did arise through a continuous process of natural development, but scientific accounts of the mechanisms involved remain unsatisfactory and further research is required in new directions.

The teleological argument or argument from design. Highly organised, specialised and adaptive biological systems, possessing function, purpose and informational content (DNA), simply cannot arise out of the fortuitous reactions of basic carbon chemistry self-assembling under naturally occurring conditions, either spontaneously or gradually. Extreme sophistication points toward the need for an *external* (but unspecified) intelligent, conscious, or supernatural designing influence.

Vitalism, orthogenesis, and dark biology. Intuitively, living things appear to comprise something more than just the sum of their chemical and physical reactions, suggesting some unknown or unknowable *internal* vital element or dark biology. This ‘life force’, whether physical, metaphysical, or emergent, may be central to regulation and may largely guide both embryological and evolutionary development.

Following the general acceptance by the 1940s of the ‘modern’ evolutionary synthesis – natural selection acting on random genetic variation – as the principle causation in transformation of species, a steady trickle of individual authors and researchers have questioned the foundations of a tower of theory erected upon that premise. In the early 21st century, however, there have arisen more organised challenges to the supremacy of the ‘random variation plus selection’ model, notably in the visage of the Extended Evolutionary Synthesis (EES) and The Third Way.

The EES is a research project which aims, as the title suggests, to broaden the outlook of orthodox evolutionary theory to include other, possibly important mechanisms of heritable change. A diverse group of scientists believe that the gene-centric approach is stifling the exploration of multilevel interactive systems. Growing evidence from epigenetics, developmental plasticity and other fields seems to indicate that organisms may play a more direct role in their own modification across generations. Leading proponents of the EES attempt to present the project as scientifically justified, and as raising no threat to established thinking; but clearly it does elicit an uneasy tension between defending classical theory as ‘not wrong’ and identifying it as ‘in need of change’. There is no agreement among biologists as to the necessity of the EES, with many critics contending that there are no new factors that cannot be accommodated within the existing theoretical structure. Though admitting that the EES is controversial in biology, its supporters continue to deny that there is any controversy surrounding core evolutionary theory. Yet the implication that core theory is somehow inadequate or incomplete cannot be avoided.

The Third Way: evolution in the era of genomics and epigenomics is a website that “provides a resource for those who wish to explore experimental research and theories that do not fit easily or at all into the current mainstream thinking”. It has a somewhat more radical approach than the EES, as can be judged from its rationale statement (accessed 2021):

The vast majority of people believe that there are only two alternative ways to explain the origins of biological diversity. One way is Creationism that depends upon intervention by a divine Creator. That is clearly unscientific because it brings an arbitrary supernatural force into the evolution process. The commonly accepted alternative is Neo-Darwinism, which is clearly naturalistic science but ignores much contemporary molecular evidence and invokes a set of unsupported assumptions about the accidental nature of hereditary variation. Neo-Darwinism ignores important rapid evolutionary processes such as symbiogenesis, horizontal DNA transfer, action of mobile DNA and epigenetic modifications. Moreover, some Neo-Darwinists have elevated Natural Selection into a unique creative force that solves all the difficult evolutionary problems without a real empirical basis. Many scientists today see the need for a deeper and more complete exploration of all aspects of the evolutionary process.

In characterising mainstream theory as invoking ‘a set of unsupported assumptions’ and solving problems ‘without a real empirical basis’, *The Third Way* appears to favour replacement over extension of orthodoxy.

Proponents of the EES and *The Third Way* are anxious to disassociate themselves from any inference of divine or supernatural causes, and equally anxious to repel claims by creationists that evolution is a ‘theory in crisis’. Yet in criticising established theory while failing to demonstrate any convincing alternatives, they can only be adding sustenance to the conclusion that no reliable theory of biological origins is currently in existence.

The teleological argument, or argument from design, is probably as old as human thought, but its most recent incarnation as Intelligent Design (ID) was developed in the early 1980s as a response to the growth of knowledge in molecular and cell biology. A key concept in ID is the notion of *irreducible complexity*, the contention that highly complex biological systems could not function unless they were complete in the beginning. Such systems could not have developed, so the argument goes, by any known natural law process of gradual increment, and, like the pocket watch in William Paley’s 1802 analogy, could only have been constructed by an intelligent agent. If something appears to be designed, so common sense tells us, then it probably was. Another line of argument draws on the genetic code, which, in representing a form of programmed information, also reflects the work of a mind. ID does not challenge the evidence for change over time in the fossil record, nor necessarily the principle of common ancestry: but it does challenge the idea that all biodiversity arose through undirected, blind processes.

Although there is an atheistic version of ID (life on Earth was seeded by advanced aliens), and vaguer metaphysical beliefs in an impersonal ‘universal consciousness’ or ‘natural teleology’ might constitute other versions, in most cases the intelligent agency is inferred to be the mind of God. The accusation that ID is religiously motivated is therefore easy to make; but the religiously motivated are not necessarily afflicted with

poor scientific judgement (viz. Newton, Boyle, etc.), and supporters of ID claim that scientific evidence points toward the need for a designer. Mainstream academia dismisses ID as ‘pseudoscience’, but many of the leading advocates of ID boast a scientific background, and retort that it is the far extrapolations of Darwinism that constitute pseudoscience.

Given that evolution is understood to be an unguided, purposeless process of natural causation, ID challenges the assumption that artificial selection can be regarded as evolution or evidence for evolution. The productions of selective breeding and genetic engineering are directed and designed to purposeful ends by intelligent beings (humans), and could not otherwise arise through any unmanipulated natural law process. Might not the beaver’s dam also be considered a structure of intelligent design, since it is built for a purpose, and can be easily distinguished from any random pile of branches caught up in the bottleneck of a river? Indeed, the instincts of much of the animal kingdom may be perceived as expressions of intelligence, and the fact that every adaptation in the animal and plant kingdoms serves a practical purpose may suggest to many that intelligent design is an integral part of nature.

There is much that ID leaves unanswered. Which steps in the history of life resulted from purely unguided natural causes, and which from some form of conscious intervention? We cannot tell! The theory of evolution by natural selection has been repeatedly criticised for not being fully testable or falsifiable, yet these criteria are even more difficult to apply to the ‘theory’ of Intelligent Design. Conclusions about biological origins do not derive *directly* from scientific facts, but from subjective and probabilistic interpretations of those facts, guided by prior assumptions based on favoured theories or beliefs. There can be no ‘proof’ of one narrative over another.

Teleological thinking is not confined to biology, and holds that the entire cosmos reflects the signature of an ordered mind. In this degree there is considerable overlap between ID and the *anthropic principle*, the idea that the universe is finely tuned to allow the emergence of humankind. Here again, it is very important to distinguish between scientifically obtained facts and their interpretations. As newly discovered scientific facts about the natural world continue to emerge, they can be used to support or justify either materialistic or spiritualistic worldviews. However, the design argument maintains that increasing scientific knowledge, for example in understanding the extraordinary complexity of a single living cell, far from providing useful insights into natural law origins, is rendering such explanations more and more impossible.

The doctrine of vitalism had multiple manifestations in all ancient philosophies and religions, survived into the 19th century as a scientific theory or hypothesis, and continues today as the ‘healing energy’ in alternative therapies. In his internationally popular 1907 book *Creative Evolution* (English version 1911), French philosopher Henri Bergson proposed a theory of *orthogenesis* (directed origins) based on the existence of a ‘creative force’ or ‘vital impetus’ that directs or drives the progress of biological change over time. No matter how far knowledge has advanced in the biological sciences, it is difficult to escape the instinctive perception that living entities possess some innate spirit or vital spark that vanishes upon death.

Living entities far exceed the capabilities of any manmade machine in that they can grow, reproduce and repair themselves, can provide or obtain their own sources of energy, and can maintain their form and function while constantly exchanging their atoms. Unlike a machine, however, which can be animated into action by assembling its necessary components, a biological organism cannot be ‘brought to life’ by simply connecting inanimate parts: it seems to require some additional ingredient or impulse.

The general acceptance of dark matter and dark energy in physics allows cosmologists to openly talk about what they do not yet understand. They do not know what form of matter prevents galaxies from flying apart, and they do not know what source of energy causes the expansion of the universe to accelerate. These unknowns are not peripheral details, they are fundamental questions about the structure of reality. But in biology there is a reluctance to focus on fundamental unknowns; one might say, even, a lack of humility. Every living organism begins life through the unfathomably complex chemistry of growth and development; but what is it that governs and centrally coordinates this remarkable life-sustaining process, and how did it originate? Reductionist molecular insights only give a fragmentary and disconnected understanding of the homeostatic whole; but the idea of an underlying ‘dark biology’ – a term that simply highlights that which is fundamentally unknown – is anathema to modern biologists. Any suggestion of the mysterious or the metaphysical must be immediately quashed for fear of giving oxygen to the loathed enemy – creationism and its god of the gaps.

In accepting that the Darwinian explanation of origins as insufficient, and rejecting the literal account of Genesis as unsustainable by any rational interpretation of the evidence, the above three alternatives offer something for all philosophies of life. For the strict materialist or atheist, the research programs of the EES or The Third Way give hope for the scientific discovery of more demonstrable mechanisms of organic transmutation. The study of emergent properties and the science of complexity, as opposed to purely reductionist science, may help to overcome the materialists’ scepticism of dark biology. For those further inclined towards the view that science is not the exclusive road to knowledge, intelligent design and vitalism (interpreted as life force, energy, aura, soul or spirit) provide more expansive ideas inclusive of both material and immaterial (spiritual) principles. It is not my intention to favour or advocate any one alternative, material or immaterial, exclusively over another. I counsel on the side of humility; but the search for truth requires a far greater acceptance of the greater unknown. The practice of teaching that the process of evolution is ‘more or less explained’ is founded on both ignorance and arrogance. An honest intellect will concede that an unerring allegiance to any one system, including to Darwin or Genesis, is a matter of personal preference or prejudice. Disturbing as it may feel to some, the origins of our existence remain obscure.

To complete the spectrum of views on origins, inclusion must be allowed for the attempted compromise of ‘evolutionary creation’, also known as ‘theistic evolution’ or, perhaps more accurately, ‘deistic evolution’. This is the not uncommon conviction, supported by many contemporary religious creeds, that Darwinian evolution is true and happens to be the way God created life. In my estimation this stance represents the most illogical of conclusions in that it disregards at least three fundamental contradictions. Firstly, in the disquieting mix of divine purpose with purposeless Darwinism; secondly, in the projection of a god capable of miraculous intervention and personal reciprocation in the world (i.e. a ‘living’ god), yet apparently incapable of such miracles and interventions in the creation of life; and thirdly, in accepting the role of a creator god, while also accepting a materialistic theory that’s very aim is to account for origins without the need for a creator god. A psychological state of tolerating inconsistent beliefs is recognised as *cognitive dissonance*, and may arise as a response to competing peer pressures.

Notions of ‘evolutionary creation’ and ‘creative evolution’ tend to muddle definitions of what we mean by creation and by evolution. The term *creation*, with a small ‘c’, simply means the process of creating, regardless of what type of agency is involved.

The Creation, with a capital ‘C’, is traditionally taken to mean the creating of the universe or world as an act of God. In contrast, I agree with science historian Peter J. Bowler that *evolution* in a general sense refers to the formation (or creation) of the living world by natural causes alone (*Evolution: The History of an Idea*, 1989). Since we cannot distinguish between natural laws and natural laws ordained by God, ‘evolutionary creation’ follows exactly the same science as atheistic creation i.e. it is just evolution. Invoking a supreme being as First Cause does not change the purely mechanical outcome. Evolution cannot dismiss the possibility that natural laws are sustained by a higher power, but it does dismiss the idea that natural laws are ‘guided’ by a higher power, for that would be to invoke a directing force other than the laws themselves. By the same definition of terms, Bergson’s ‘creative evolution’, if it invokes any immaterial or metaphysical causes, is no process of evolution. Those who posit that any form of purposeful superintelligence guided the development of life, or adjusted the laws of nature to arrive at the apex of humankind, are still rejecting the ultimate scientific premise of evolution, which is to account for all origins through mindless, insentient physical causes alone.

A further clarification is needed to distinguish *creationism*, the belief that origins cannot be explained without at least some specific acts of divine or conscious intervention, and *evolutionism*, the belief that physical causes alone provide sufficient explanation. Creationism does not exclude natural causes, but evolutionism does exclude supernatural causes (as does evolution). The two positions are oppositional and cannot be combined, and are held by *creationists* and *evolutionists* respectively. The creationary synthesis therefore cannot combine the premise of creationism with the premise of evolutionism (or evolution); what it does combine are the different sources of creation, both material and spiritual.

Whether evolution by natural selection should be conceived as a process orchestrated by God, or as an entirely godless process, is a question made redundant by the conclusions supported in this work. The ‘one long argument’ I present here is intended to slowly nurture the realisation that evolution according to Darwin simply did not happen.

On the entrenched positions of evolutionists (representing science) versus creationists (representing religion):

“Science and religion are two windows that people look through, trying to understand the big universe outside, trying to understand why we are here. The two windows give different views, but they look at the same universe. Both views are one-sided, neither is complete. Both leave out essential features of the real world. And both are worthy of respect. Trouble arises when either science or religion claims universal jurisdiction, when either religious dogma or scientific dogma claims to be infallible. Religious creationists and scientific materialists are equally dogmatic and insensitive. By their arrogance they bring both science and religion into disrepute.”

*Freeman Dyson, eminent physicist and mathematician,
Templeton Prize acceptance speech 2000.*

Philosophy Before Science

When scientific methods are employed to explore and explain the origins of life's bewildering complexity and diversity, it is presumed that material science is capable of resolving these primeval mysteries. In these 'evidence-based' times, scientific investigation is increasingly judged to be the exclusive path of enquiry, when in former ages the domains of philosophy and religion would have tackled the 'Big Questions'. And yet it is often forgotten that science itself is founded upon a set of philosophical premises that cannot in themselves be validated by any scientific method. The following principal assumptions are important for establishing a trust in the reliability of scientific understanding, but they also suggest its possible limitations.

Naturalism: that only natural laws and forces operate in the world, and no supernatural will or action is able to intervene.

Materialism: that nothing exists that does not ultimately derive from the physical interactions of matter and energy.

Reductionism: that the existence of any complex structure or system can be sufficiently accounted for by analysis of its smaller or simpler elements.

Causality and Determinism: that nothing happens without a cause, and all events result from preceding events.

Naturalism is a necessary assumption underlying the scientific method, though the distinction between methodological naturalism and metaphysical naturalism is sometimes made. Methodological naturalism simply states that science is confined to investigating natural phenomena, and has nothing to say about the existence or otherwise of the supernatural. Metaphysical naturalism is a broader philosophical view asserting that science can only investigate the natural because the supernatural does not exist. But if methodological naturalism allows the freedom to 'do science' and still believe in the supernatural, it is inconsistent with another generally accepted naturalistic premise: that nothing ultimately resists explanation by the methods of the natural sciences.

In the teaching of evolution, methodological naturalism may simply be used as a way of avoiding questions about God – the subject lies outside the purview of science. But it may also be used, somewhat disingenuously, to persuade religious believers that there are no areas of conflict between Darwinism and theism – the two subjects are said to represent separate, immiscible domains of thought. Unfortunately, points of conflict are not resolved by simply erecting mental barriers and not talking about them. The real problem for religious believers is that naturalism leaves no space in which a supernatural god (there is no such thing as a 'natural' god) can act, since all phenomena and experiences are to be interpreted exclusively according to naturalistic explanations. So while methodological naturalism appears not to openly deny the supernatural, it does so implicitly by not recognising its existence.

In a deistic worldview, where a supernatural god is understood to have designed and sustained the natural laws of the universe but not to have subsequently intervened, it is possible to marry a particular notion of god to the principle of naturalism. This is the god who is posited to have preordained the workings of the world and then enjoyed watching them unfold towards their inevitable conclusion – an idea entirely compatible

with evolution. Such a god can still ‘reveal’ Godself through the wondrously intricate mechanisms and awesome spectacles of nature, and could still provide a path to eventual enlightenment using physics and chemistry alone (assuming that the soul, too, is composed of physics and chemistry). But this is not the kind of god in which most religious believers place their faith. The god who responds to prayer or supplication, bestows personal revelations, performs miracles of healing and provides daily guidance, is a god who is constantly intervening with the progress of events. Those who accept the supernatural volition of a living god or other spirit beings, within or without a formal religious context, must therefore also accept that natural science cannot explain all phenomena and experiences.

Many fail to perceive the important distinction between natural laws and the *use* of natural law. Humans can harness their knowledge of the laws of physics and chemistry to construct cars and computers; but such complex designs could not be assembled by the laws of nature acting on their own. More to the point, genetic engineering can produce organisms that could not arise in nature, regardless of the fact that natural science is employed in the methodology. This raises an interesting philosophical question: Since humans can manipulate and control natural laws according to their purpose and will, does this represent a supernatural cause, i.e. power over and above nature? Spirit beings exercising such control, for example in modifying living organisms over time, would certainly be regarded as supernatural.

Traditional materialistic philosophy, which stretches back to the ancient Greeks, is simply the doctrine that nothing exists except matter, and that there can be no parallel spiritual or immaterial reality. It holds that mind is merely a product of the brain, that souls, spirit beings and gods are also imaginings of the brain, and that there is no pervasive consciousness underlying or maintaining the structure of the world. The philosophical divide between spiritualistic (or *idealistic*) thinking and materialistic thinking is reflected in the opposition between religion and science. In idealism (referring to ‘ideas’ not to ‘ideals’), the material realm is seen as a projection or creation of mind or consciousness; in materialism, matter is considered primary and mind becomes an artefact of matter. However, discoveries in modern physics concerning quantum mechanics and dark matter – not to mention antimatter! – have made it hard to define exactly what matter is, and harder still to distinguish matter from what is not.

For this reason the concept of materialism has been refined into that of physicalism, advocating that existence is limited to that which can be verified by physical science. Reality may now be extended to include not just matter, but energy, forces, spacetime, and all the relevant properties and laws associated with these. Aside from a degree of circularity – physics *could* only verify that which is physical – it is not obvious that this broader acceptance of materialism brings any greater clarity; for it may be no easier to define what is physical than to define what is material. Does time, which constitutes an essential element in the calculations of physics and chemistry, and without which effect could not follow cause, have any physical existence?

The paradox within physicalism’s assertion – that all existence must be limited to what can be physically verified – is that our understanding of the physical sciences depends on a mental framework that has no physical existence itself. The laws of physics, and the mathematical formulae and constants to which they adhere, tho obviously real in that they are able to describe and predict real events, nevertheless have no material or physical existence of their own. Mathematical laws are able to predict interactions between material and energetic states with dependable constancy and

surprising accuracy; yet they only exist as abstract ideas, applying universally but independently of time and space.

This Platonic mathematical reality underpinning the order of the cosmos, and operating at the quantum level too, is troublesome for materialism or physicalism. It requires an intelligent mind to comprehend basic maths, and an above average one to grasp advanced mathematics. Might this not suggest that mathematics and the mathematical laws of physics cannot exist without mind? Early Enlightenment scientists, including Newton himself, believed they were revealing the workings of God's ordered mind. Only when men and then women started behaving like gods themselves, seduced by the power of science and technology to control nature, overcome the enemy, and manufacture marvels of medicine, did the celestial implications of science begin to fade from view.

As the physical sciences wander ever further from the window of human experience, either at the cosmological level or the quantum level, the phenomena discovered become ever more difficult to conceive with the rational mind. It then becomes increasingly difficult to interpret things in terms of solid ideas, let alone solid matter. Since rational thought is the basis of the scientific method, we have to question whether our understanding at these boundaries is really 'scientific'. If there are limitations to how far physics can penetrate, as some physicists believe, then it cannot be claimed that existence is limited to what physics can verify.

We distinguish, and can never help distinguishing, between the things which are of our own scale and order, to which our minds are accustomed and our senses attuned, and those remote phenomena which ordinary standards fail to measure, in regions where (as Robert Louis Stevenson said) there is no habitable city for the mind of man.

D'Arcy Wentworth Thompson, *On Growth and Form*, 1942, p20.²

If you think that physics has solved most of the fundamental workings of the universe, then think again. The 'list of unsolved problems in physics' is very long, and includes questions in the area of biophysics. The progress of the physical sciences demonstrates an unexpected paradox, that the more we discover, the more is revealed to be unknown. The point of omniscience seems to get further rather than closer. If the study of physics has taught us any one fundamental truth, it must surely be that there is something greater than ourselves, a oneness beyond the capacity of our rational minds, a kind of pantheistic realisation of which Einstein was humbly aware.

The challenge in biology to materialism, or physicalism, lies in attempting to understand the workings of the mind and consciousness. The rigidly adopted view in contemporary science is that the conscious mind is a production of the physio-chemical interactions of the brain. Yet this approach amounts to no more than a working assumption. Although much can be learned from mapping electrical activity in the brain, no scientific instrument can detect, isolate, or replicate consciousness itself. An experience or thought in the mind is entirely subjective, and there is no objective way

² D'Arcy Wentworth Thompson's thousand page tome *On Growth and Form*, first published in 1917 and revised in 1942, remains a classic work still in print. As a scientist, mathematician and reader of classical philosophy, D'Arcy Thompson's humble acceptance of our ignorance concerning the mysteries of living matter, and his understanding of the limitations and "allure" of evolutionary theory, arose from areas of thought beyond the normal purview of biological study. In recognition of the importance of his philosophical insights, several quotations from *On Growth and Form* are included in this introduction.

in which a researcher can model an identical experience and investigate it using physics, chemistry or biology.

Attitudes among medical practitioners are more varied than among neuroscientists, owing to their direct contact with patients who remember lucid experiences during ‘unconscious’ or ‘brain dead’ states, or gain such lucidity just before dying. The volume of subjective evidence for the independent existence of consciousness, coming from out-of-body projections and from a whole range of other religious or spiritual experiences, constitutes millions of personal testimonies across history. The ability to observe one’s own thoughts and feelings through introspection, suggests of itself that the conscious will is in some manner detached from, and has some measure of control over, the habitual mechanics of the brain.

Of how it is that the soul informs the body, physical science teaches me nothing; and that living matter influences and is influenced by mind is a mystery without a clue. Consciousness is not explained to my comprehension by all the nerve-paths and neurones of the physiologist; nor do I ask of physics how goodness shines in one man’s face, and evil betrays itself in another.

On Growth and Form, p13.

If consciousness, like the mathematical laws of physics, has no material existence, being made up of neither matter nor energy, then it can be neither investigated by nor accounted for by material science. This is the philosophical claim of dualism, that mind and body coexist as fundamentally different states of being. Furthermore, if the conscious mind does not derive from physics and chemistry, then it does not derive from genes or any process of evolution. Considered as an immaterial first order reality, consciousness need not be bound by the constraints of space and time.

The existence of an immaterial conscious being or soul would imply a third component to human behavior, in addition to genes and environment. This in turn would undermine the essential premise of evolutionary psychology, which states that all instinctive behavior is hardwired in the brain by the process of evolution. The higher conscious state forms a very important part of what it means to be human, and an important part of what distinguishes humans from other animals. If material evolution cannot account for it, then neither can it define what it means to be human.

Scientific reduction is the process of explaining things by taking them apart, thereby showing how they work, how they happen, or how they come to be the way they are. Insights into how an animal moves, for example, are gained by dissecting its muscles; and insights into the functioning of its muscles by examining the muscle cells. This process of discovery, in which each level of complexity is comprehended through revealing the level below it, expresses ‘hierarchical reductionism’. Thus, the functioning of a muscle cell is further revealed through its biochemistry, its biochemistry through its genes, and so on, through ever-smaller units. Evolution through universal common descent is also a reductionist theory, proposing that each biological level of complexity developed from a preceding simpler level.

Reductionism is also an attempt to unify the sciences, through the proposition that all phenomena can ultimately be explained by the interactions of a few fundamental particles, forces and laws. Thus, biology can be reduced to chemistry, chemistry to physics, and, at the other end of the scale, psychology and sociology to biology.

In evolutionary science, reductionist methods are accepted because they appear to extract relatively simple explanations out of unfathomable complexity; but also because

the only alternative is harder to accept: that there is either no explanation, or that the explanation is beyond our comprehension. In seeking the scientific principle of parsimony, faith in the ‘explanatory power’ of proposed evolutionary mechanisms tends to rest more on their logical appeal than on any hard, solid evidence. Concerning the origins of levels of biological organisation, the expanse between reductionist theory and observable reality remains enormous. Volumes of work accrue in attempts to explain how a simple living cell could be built up from organic chemicals, how a more complex cell with nucleus and organelles might be constructed from the combining of simpler cells (endosymbiosis), and how differentiated cells in a multicellular organism arose from undifferentiated cells. But no single hypothesis or theory has ever been confirmed by observation in nature, or by inducing any proposed transformative mechanism in the laboratory. It is this complete lack of empirical verification that allows advocates of Intelligent Design to maintain that certain features of biological complexity are ‘irreducible’.

The gene-centric view that ‘all of life is determined by genes’ is another example of reductionist thinking not conforming with observation. In the real world cause and effect operate at multi-levels and in both directions, not just from the bottom up. Thus, genes are regulated (and repaired) by control exercised at the cellular level, and the very survival of genes may be decided by events in the external environment. Organisms, in turn, are able to modify their own environments, and thereby modify their own genes indirectly by adapting to their self-created environments. Proponents of the Extended Evolutionary Synthesis and the Third Way argue that the dominant reductionist approach hinders broader research into other evolutionary mechanisms, and that an ‘integrated’ or ‘holistic’ approach into multiple intrinsic and extrinsic factors might solve some of the inherent deficiencies in current theory.

Another limitation to explanatory reductionism is the phenomenon of emergent properties, where a substance or system exhibits more than the sum of its parts. Water, for instance, possesses chemical and physical attributes that occur in neither of its two elements, hydrogen and oxygen. ‘Emergents’ are much more problematical in highly complex systems with numerous inputs, and there can be no more complex system than the human brain. It seems naïvely simplistic to believe that mental abilities such as memory, imagination, judgement, and aesthetic sense could be reduced to the firing of specific neurons in isolated parts of the brain. The parallels between the aspirations of modern neuroscience and those of the old Victorian practice of phrenology, in which localised features of the cranium were correlated with personality and creative talents, are hard to dismiss. The popular notion that there is ‘a gene’ for this or that behavior or personality is another example of a reductionist fallacy, since no gene acts independently of all others, and most genes have multiple effects.

The sheer scale of possible interconnections within the brain, together with all its radiating links to the body and senses, and its incalculable library of emergent properties, will forever thwart vain attempts to uncover a ‘mechanism of thought’. It would be absurd to think that ink and paper could account for the information in a book, or that pigments and canvass the expression of a painting; yet reductionists continue to believe that genes and electrical activity can alone account for the creative abilities of the mind.

Complimentary to reductionist science is the growing field of *complexity science*, where researchers observe and try to model emergent properties. But the task of explaining how or why ordered patterns and behaviors emerge out of complexity, or indeed out of chaos, remains very challenging; for it is difficult to provide such explanations without resorting back to scientific reduction.

A final criticism of reductionist philosophy is that it can become an object lesson in cynical thinking: everything is reduced to its lowest common denominator, which in the case of evolution is its basic survival benefit. While it cannot be denied that human intelligence is a powerful aid to survival, enabling the species to adapt to almost every climatic region on Earth, the Darwinian advantages of artistic talents or transcendent religious states are much less tangible. Are music and poetry really just elaborate extensions, or accidental by-products of sexual selection in a brainy animal; and is spiritual devotion only a strategy for group survival, and nothing more than that? The limitation of these ‘rational’ accounts is that they appear devoid of any of the higher states of perception they are attempting to explain: they are, in word, shallow. (It need only be noted that not all poetry and song is about love and romance, and not all spiritual devotion is done in groups.) Following the famous tee-shirt smelling tests, some scientists believe research to show that human choice of reproductive partners is significantly influenced by subtle differences in body odour; and they add support to this conclusion by providing an ‘evolutionary explanation’ for the behavior. It would seem that this genre of science appeals to gullibility as well as cynicism, and it should be rejected on both counts.

To amplify the limitations and pitfalls of the reductionist approach, some further thoughts are retrieved from D’Arcy Thompson:

It has been remarked over and over again how harmoniously the whole organism hangs together, and how throughout its fabric one part is related and fitted to another in strictly functional correlation. But this conception, though never denied, is sometimes apt to be forgotten in the course of that process of more and more minute analysis by which, for simplicity’s sake, we seek to unravel the intricacies of a complex organism.

As we analyse a thing into its parts or into its properties, we tend to magnify these, to exaggerate their apparent independence, and to hide from ourselves (at least for a time) the essential integrity and individuality of the composite whole.

The biologist, as well as the philosopher, learns to recognise that the whole is not merely the sum of its parts. It is this, and much more than this. For it is not a bundle of parts but an organisation of parts, of parts in their mutual arrangement, fitting one with another, in what Aristotle calls “a single and indivisible principle of unity”.

On Growth and Form, chap 16.

Causality, or ‘the law’ of cause and effect, is an intrinsic part of the physical world, and it would be impossible to do predictive science if it were not so. According to the French zoologist Yves Delage, writing in the introduction to *The Theories of Evolution* published in English in 1912, evolution represented the final triumph of causality in human thought:

Taken in its broadest sense, it [evolution] is closely allied with the idea of causality: nothing can happen without a cause, nothing can disappear without leaving traces; all things have their origin in the things which precede them and engender the things which follow them... The theory of causality has a tremendous importance, both in science and philosophy, as it eliminates from

human speculations the supernatural or marvellous element, and compels man to seek explanations which admit of none but natural factors.

Unfortunately, having considered all the topical theories of evolution in fervent debate at the time, Delage was unable to fully endorse any one of them in order to fulfil the promise of causality; though he favoured Lamarckian inheritance of acquired characteristics over Darwinian natural selection. Today, natural selection is favoured, but fervent debates over additional or alternative causes of evolution still effervesce beneath the consensus. If the theories of evolution have taught us anything important in the century following Delage, it has to be this: that however diligently we seek to discover natural causes, we may not necessarily find them.

Causality is simple enough to grasp as an abstract concept, but its practical application is a far more elusive project than commonly recognised, and identifying precise, discrete causes can be an unrealistic aspiration in both science and philosophy. This is partly because cause and effect can each involve multiple factors with multiple feedbacks, and partly because of the difficulty of separating cause and correlation. In a complicated and dynamic world it is not always possible to identify all factors, to assess all their interactions, or to gauge the relative significance of each. Forecasting is an inexact science, subject to opinion and probability, and perhaps too much faith is placed in causal explanations of the past where the number of unknown factors is likely to be greater still. The speculative nature of explaining the past may be illustrated by the ‘wise after the event’ fallacy. A group of political analysts, for example, in considering all the available factors influencing a democratic election, will not be able to predict the outcome with any certainty; yet after the event they will draw upon those very same factors to apparently explain the result. Evolutionists are also wise after the event: they cannot predict what life forms will appear in the future, but claim to know the forces that sculptured those of the past.

The principle that everything has a cause raises a philosophical conundrum known as the problem of *infinite regress*. When cause and effect are reversed back in time no end point is reached, since every earlier cause must itself be the effect of a yet another cause. There are two possible solutions to this problem: either all existence had a First Cause (perhaps God?), or existence itself (without God) is eternal and only its various manifestations – one being the universe – begin and end. Whichever scenario is preferred, something is being conceived (God, or just existence itself) that has no causation to its own being; and if there be one such thing, there may be others. What, if anything, causes physical constants such as the speed of light to be constant? Rationality and morality exist in human consciousness, but do these abstract, immaterial entities have a material cause? Are logic and love created by the human mind, or are they timeless existences which the mind only perceives? If these things are eternal then they have no causation, no origin, and no need for any evolutionary explanation.

Perceptive readers will note that Delage was not advocating causality *per se*, but natural causality i.e. naturalism. Acts of divine will or human free will, if your world view permits them, would also be sources of causation in the physical world, but to be regarded as first causes. In recent years the contributions of Alfred Russel Wallace to evolution and biogeography have been reacknowledged, and the theory of evolution by means of natural selection is more frequently recognised as the Darwin-Wallace theory. But the renewed awareness of Wallace’s work does not include his reference to spirit beings, which he believed existed in a continuum between humans and the ‘Great Mind’ of the universe. Wallace argued that the higher mental and moral capacities of

humankind were both surplus to survival and latently expressed, and therefore could not have been preserved by the immediate necessities of the struggle for existence. Instead he hypothesised (for he considered it a scientific hypothesis) that intelligent spirit beings had harnessed natural laws to create the higher human mind. In total disagreement with Darwin, he viewed artificial selection as analogous to this directed intervention, and in no way analogous to natural selection. In as much as human and spirit supervision over nature arose through acts of will, Wallace accepted that in a sense these purposeful acts represented a 'first cause', i.e. a cause that was not the effect of an antecedent cause. But he denied invoking *the* First Cause – the miraculous intervention of God – because his hypothesis required neither the creation nor the suspension of natural laws. The proposition that immaterial or spiritual causes might be tested according to a scientific hypothesis is a precursor to the modern Intelligent Design argument; and the idea that any act of will – human or otherwise – is a first cause, challenges the premise of universal physical causality upon which the scientific method depends.

Closely allied to the principle of causality is determinism, the assertion that everything that happens is determined by preceding events or actions. In both science and philosophy determinism is used as an argument against free will, since what happens in the mind must also be the consequence of preceding stimuli. Taken to its logical conclusion determinism implies predetermination (or even predestination), for if all present states are the inevitable result of previous states, then all future states are already determined by present states – and it was ever so. Such a view would suggest that everything that happens is subject to predictable scientific laws, and that nothing is truly random, chaotic, probabilistic or spontaneous. In practice tho, determinism suffers from the same predictive limitations as causality: not all factors can be identified, let alone quantified, and the assumption of no first causes may be false. At the quantum level determinism appears to fail altogether, for the *uncertainty principle* means that particle states can only be predicted in probabilistic terms. So the distinction needs to be made between determinism as a purely philosophical claim (everything is determined), and the extent to which the scientific method is able to endorse that claim. While determinism is a necessary premise on which to base reliable predictions, it does not follow that nothing is indeterminate.

Biological determinism, also known as genetic determinism, is the premise or belief that many behaviours and abilities are set at the point of conception by a person's genetic endowment, and cannot be altered by social or environmental factors or easily overcome by free will. This form of determinism takes the 'nature' side of the argument in the irresolvable nature/nurture debate. Genetic variants might potentially be correlated with almost any behavioural trait, including level of intelligence, personality, compassion and love, religious belief, sexual orientation, musical ability, aggression, and even criminal or addictive tendencies. Any trait that appears to have a direct genetic foundation then attracts speculation as to its 'evolutionary purpose'. Indeed, any trait at all, whether identified with a particular gene or not, will garner such speculation. Therapists are able to comfort their clients with 'evolutionary explanations' about the 'adaptive purpose' of their suffering of depression or bereavement, the comfort being received through the story telling rather than through any scientific accuracy.

Deterministic outcomes between genes and expressed traits are always a question of probability, and the relative importance of genes versus culture is a constant area of controversy, often fuelled by opinions that might be politically or morally motivated. The idea that 'success in life is determined more by biology than by opportunity' does not meet approval among left thinking social scientists who emphasise environmental

influences; just as the idea that ‘genetically inherited aggressive tendencies mitigate violent behavior’ does not impress right wing conservatives who emphasise personal responsibility. The pliability of deterministic interpretations suggests that much of evolutionary psychology and sociobiology is largely subjective.

Accepting that some degree of influence exists between certain genes and certain behavioural expressions, this finding highlights the distinction between determinism and causality. It may be known that an expression of behaviour is determined, at least to some extent, by one particular gene, but the precise way in which this is brought about – i.e. the causal mechanism – is completely unknown. A gene is simply a template for a protein, or sometimes a regulator of other genes that code for other proteins. But how does a protein give rise to instinctive behaviour such as the intricate building of a spider’s web or the navigation of a bird’s migration route? No mechanistic understanding, in terms of a complete step by step physiochemical chain of cause and effect, is available.

These opening insights into the philosophy of science are intended to show that the (usually unstated) assumptions underlying the scientific method also define its limitations. The fact that natural or material science can only investigate the natural and the material, does not mean that the supernatural or the immaterial do not exist. To the contrary, the mathematical laws used by science to describe the behavior of matter, energy, forces and spacetime, have no material, energetic, forceful or spacetime-dependent reality themselves: they are purely abstract concepts or ideas, and no one can explain the source of their existence other than through mind. But even within the realm of the physical senses, many phenomena are not freely amenable to reductionist methodology or comprehensible in terms of simple cause and effect, due to emergent qualities and the holistic characteristics of complex systems. These limitations to the scientific method are no more apparent than in the recalcitrant mysteries concerning the origins of biological complexity, biodiversity, consciousness, and life itself: the very topics that make up the substance of evolutionary theory.

The conditions of naturalism and materialism, however, present a very different and frequently unrecognised problem for many: they are philosophical positions wholly incompatible with all forms of religious or spiritual thought. For those who know of a god or spirit beings who communicate through consciousness and influence our actions in the physical world; or know of the independent existence of a soul, perhaps in animals too, that survives physical death and possibly reincarnates; or know that the spiritual qualities of love, beauty and morality are absolute and do not derive from utilitarian function; then purely biological accounts of our origins, existence and purpose must either be incomplete or incorrect.

Yet a great proportion of religious adherents – or simply those who hold spiritual values as sacrosanct – remain oblivious to the gaping fracture between evolutionary and spiritual thinking, and choose not to challenge the gradual erosion of spiritual knowledge brought about by the pronouncements of progressive science. Repeated surveys show that roughly half of the scientific community see science as the only true method of discovery and of understanding all existence, while the other half believe science and religion each examine legitimate but separate realms of knowledge. The latter view is the one commonly presented in science education and for the benefit of public understanding; but this is, I would suggest, a merely diplomatic position that seeks to avoid areas of conflict rather than resolve them.

Those who assert that there is no controversy about evolution in science, *and* that there is no controversy about evolution in religion, are complicit in a double deception;

and I will name one prominent representative of this double denial. Kenneth R. Miller of Brown University (as of 2023) has enjoyed a long career in cell biology research, teaching, and authoring books including the co-authoring of a major school biology text. A lifelong Roman Catholic, he has also been a ‘pro-science’ campaigner and active opponent of creationism. His widely read 1999 publication – *Finding Darwin’s God: A Scientist’s Search for Common Ground between God and Evolution* – is a frequently cited text for those wishing to seek harmony between the Christian faith and the apparent findings of biology. In the concluding chapter Miller writes:

The good old days of utter mystery may not be gone, but they are fading fast.
And a scientific detective list of solved cases, like it or not, includes evolution.

The current of thought followed in *Life Without Evolution*, respecting a holistic rather than a reductionist approach, and combining a thorough research of scientific literature and media with additional research gathered from philosophical, religious and educational sources, flows to the inexorable conclusion that Miller, like it or not, is wrong on both counts. Evolution is not a solved case, and the neo-Darwinian interpretation of life is not compatible with the teachings of Christian theology or indeed any other religion.

A Balanced View of science

If the natural world is a creation of the divine, then to what purpose is scientific investigation directed? Is it purely for the love of knowledge and an appreciation of the wondrous workings of nature; or is it to control and improve upon nature, believing we know better?

The endeavours of scientific discovery are invariably justified through a list of its miraculous achievements; miracles that have now persuaded most of humanity to switch allegiance away from superstition and divinities, in favour of the tangible benefits offered by a highly educated and technologically advanced society. But this headlong embrace of the scientific paradigm is incautious of a balanced view. Not all the products and by-products of technological progress are beneficial, and while the methods of scientific enquiry reveal hidden truths about the workings of nature, they may not reward us with the whole truth. The scientific genie (genius?) is out of the bottle, but the wishes it grants come with a catch.

While science has nurtured growing populations with ever more efficient ways of producing food, it has also blighted humankind with ever more efficient ways of killing in war and genocide. And while medical cures multiply, so does the agenda of physical and mental ailments unknown in pre-industrial or hunter-gatherer societies. Material science has generated great wealth, but it is yet to be proven that such wealth can exist without the counterbalancing weights of poverty, exploitation and environmental degradation. Scientific knowledge unleashes awesome power, and the lust for that power blinds us to its destructive forces. Wisdom and morality ought to be the restrainers of scientific progress, but all too often science drives the future course of society while wisdom and morality are amended as afterthoughts in the turbulence of its wake.

During the coronavirus pandemic of 2020/21, science produced another of its modern miracles by rapidly developing vaccines to relieve millions from severe illness or death. However, this achievement was accompanied by much uncertainty and contention on the broader scientific front. As governments around the world imposed restraints on

freedom of movement and other measures to reduce contagion, their varying policies were justified by assertions to be ‘following the science’. It soon became apparent, as many commentators pointed out, that not only was the science continually changing, but that different scientific advisers expressed different opinions. Predictions made public by epidemiologists and virologists were often wide of the mark, and recommendations ranging from loose herd immunity to strict total lockdown all claimed scientific validity. The perception that policy makers could hang responsibility for their decisions on science was a mirage: there was no such thing as ‘The Science’. Facts and data gained through research must pass through the filters of interpretation, always subject to personal or group beliefs, preconceptions, politics, anxieties and ambitions. The difficulty for all of us lies in separating the science from the story teller.

And nothing tells a better story than a news headline, presenting or manipulating the facts of science in such a manner as to attract interest or attention. Such a headline might be, ‘Scientists report red wine may have health benefits’, based on the finding that red, as opposed to white wine, contains a higher level of beneficial antioxidants. But the headline, and the research papers from which the conclusions may be drawn, are misleading in that they appear to associate health benefits with drinking alcohol. If good health were the true objective, then the same or greater benefit would be obtained from consuming red grapes in their unfermented state.

Concerning alcohol itself, data compilation studies have found a positive correlation between moderate drinking (compared to no drinking) and a variety of improved physical and mental health outlooks. Other studies, though, suggest there are harmful effects. The delusion being perpetrated by these reports, not just by the media but more importantly by the academic community itself, is that science can be entrusted to reliably answer any health and nutrition question posed. It cannot. Reductive scientific methods and statistical demographic studies, even when used together, cannot provide any definitive general or holistic overview of whether alcohol is good or bad, simply because of the sheer mass of factors involved. Alcohol may have separate effects on every organ of the body, interact with an almost infinite number of substances and metabolic pathways, and produce a variety of both short-term and long-term behavioral changes. Further, tolerance varies between individuals and between populations, and there are also social and lifestyle variables to consider.

We are all familiar with headline ‘new research’ reporting that wine, or coffee, or butter is bad for health, only to be followed a few months later by ‘new research’ reporting the opposite. Such reports regularly appear in peer-reviewed papers in scientific journals. The nutritional myth ‘spinach is high in iron’ and the medical myth ‘drink eight glasses of water a day’ (still believed by many decades later) both began as ‘science-based’ advice that turned out to be science-based errors. If you want to know whether moderate consumption of alcohol or coffee are good, bad or indifferent to your own physical and mental well-being, then take confidence in your own observations, becoming mindful of their effects on your own body and behavior. On many matters of health and nutrition it is not possible to place trust in ‘the science’, because different research sources frequently draw contradictory conclusions.

The ubiquity of human alcohol indulgence could hardly be ignored by evolutionary psychologists. They may tell you that our primitive ape-like ancestors were attracted to the smell of fermenting fruit, or relate some other story to account for our predilection or ‘adaptation’ for alcoholic sustenance. Eagerness for a good story, however, is not confined to a subset of gullible wine drinkers. Scientists will construct narratives and select evidence to support whatever theory they may happen to favour. What is written

under a science headline, or even presented in a science journal, is rarely the truth, the whole truth, and nothing but the truth.

It is the whole truth that is revealing how the industrial and technological marvels of the last two centuries, driven by science, continue to impoverish the vitality of our home planet. Reductionist science cultures a narrow and fragmented field of view, and the consequences of its practical application are frequently unforeseen. Those who glorify Enlightenment³ rationality for its progressive attainments, are reluctant to make the rational connection between ‘progress’ and the acidification of the oceans, loss of pollinating insects, dispersal of microplastics, and a hundred other global ecological crises. Unwilling to accept that science is the tool of abuse, their prescription for reversing these environmental disasters is to apply yet more science. Unfortunately, while new technologies can mitigate the harmful effects of the old, they tend to spawn further unanticipated environmental problems of their own. As humanity’s ever growing addiction to technology demands to be fed, politicians the world over are compelled to preach the same old sermon: progress is good, science leads to progress, therefore science is good. The policy wins them votes, and delivers well paid positions of power. For voters it delivers ever greater promises of material consumption and expectations of self-entitlement.

By an extraordinary perversion of logic, it has become accepted wisdom to report that science has given humanity a greater understanding of its connection with the natural world. We were unaware of any connection, apparently, until scientific monitoring of endangered species, pollution levels, loss of top soil, and receding ice caps revealed threats to our future survival. Humans must now, as science was slow to realise, confront the reality that they are not overlords of nature, but subjects to the restraints and feedbacks of its intricate web. But these hard facts of science, cataloguing negative impacts upon the biosphere, and supposedly directing us to a less self-destructive future, omit the earlier history of events. It was the very pursuit of reductionist science, conjuring the illusion of ‘control over nature’, that formed an underlying theme to the industrial revolution. Nature, of course, does not need controlling, and ‘control’ was always a euphemism for exploitation and prodigality. Opportunistic commercial profiting of the earth’s resources also became aligned with evolutionary thinking, in the sense that an intuitive appreciation of the ‘balance of nature’ was considered *passé*, because it did not fit with the Darwinian paradigm of competition and selfish genes. The historical course of science and technology is directly and solely responsible for *disconnecting* people from nature, attracting billions to live and work in urban and artificial environments. So the claim that science is ‘good’ because it is teaching us to connect to and care for the natural world, must be balanced by the understanding that science was primarily ‘bad’ when it served as the vehicle to our current state of disconnection and disregard.

Another literary invention is the idea that evolutionary science is fostering in human society a greater appreciation of our affinity with other species. To an evolutionary biologist reading research papers, the commonality of DNA sequences and social behaviours between humans and chimps may dawn as an unexpected surprise. But to aboriginal peoples, whose relationship with the land was one of belonging rather than owning, an intimate and interdependent relationship with all animals and plants was part of their everyday experience. Those who work closely with animals or live with pets, do not need science to inform them of empathetic bonds with other species; and

³ True enlightenment was practiced by Tibetan monks, who lived to a great age without the aid of any health system or industrial scale food production, and did not wage war on the planet or its sentient beings.

the animals with which we tend to form the closest bonds, contrarily, are generally not our closest 'evolutionary relatives'. Evolutionary thinking can only restore a sense of kinship with other species in those people who have already lost it; and even then the kinship is only felt vicariously rather than viscerally. What evolutionary biology can never restore is the spiritual, sacred and magical connection to the natural world that long ago dwelled in all human consciousness. Remember, too, that the worse abuses and exploitations of other species, for instance in early days of vivisection and factory farming, were facilitated by new techniques engineered by science. Ethical concerns only arose in retrospect.

On environmental issues science informs the evidence for the prosecution, but why is it not standing in the dock as the accused? Science is being awarded the moral high ground for alerting us to the consequences of our abuses of the earth's resources and species, while being overlooked as the leading and amoral instrument in growing the enormous scale of those abuses. There can be no question that consumerism is powered by science; and the current state of the planet is, no less, the legacy of science. Research and development, aimed at improving the health and longevity of humankind, would not be possible without the highly industrialised society that supports it; but it is the industrialised society that is destroying the ecology of the earth upon which all healthy life depends.

A generally unbalanced perception goes hand in hand with excessive faith and trust in science, or what is believed to be science. Judgements based on common sense, intuition, or innate morality are considered unreliable, and professionals and politicians alike feel unable to make decisions without scientific justification backed up by research data. In its most extreme form – scientism – the scientific mindset is accepted as the *only* valid way of interpreting observation and experience, and the only foundation on which to base decision making and moral judgement. In truth, the 'evidence based' approach provides no insurance against uncertainty (though it may provide insurance against personal responsibility!). Evidence can change; evidence can be selective; evidence can be contradictory; and most importantly, evidence can be subjectively interpreted. Nor is the majority view dependable, since truth is not determined by democracy, and consensus of opinion is no more than an opinion that is strongly held.

A reawakening of common sense and intuition can help greatly in discerning the merits of scientific claims. We can trust science to develop an effective antibiotic, build a reliable motorcar, or to predict a coming storm. But do you believe the researcher who concludes that animals feel no pain, or the advertising company that claims a product is 'scientifically proven'? We know that physics can explain how the planets rotate about the sun, but we also know that it cannot explain how thoughts circle in the mind. Our emotional feelings and moral instincts are there to help and guide us, and should not be minimised or explained away by scientific or evolutionary rationalism. Science itself has no feeling or emotion, no morals and no values; no loving heart to care for the planet or to care for fellow sentient beings. It is cold, it is dark.

Given that objectivity is such an important criterion in the scientific method, it seems paradoxical that so many judge science itself without objectivity. The majority want to believe that the consequences of scientific progress are invariably good, and do not wish to consider that it might be otherwise. This is faith misplaced. A more balanced appraisal informs us that the miracles, wealth and power generated by science and technology do not come without a price to pay; that science is often awarded the credit but rarely given the blame; science exposes new truths, but not always the whole truth;

and science may be relied upon in some circumstances, but in others not. Science is no ultimate authority, nor a bastion of humility, and should never be a guide to moral or philosophical direction. There is no such thing as ‘pure’ rational science. Rationality dwells in the human mind, a place it shares with much impurity of thought. As a final pin in the science bubble it should be noted that, in the pursuit of esoteric knowledge, glamorous science projects consume large resources that could be put to more immediate human needs. Such projects would include the building of ever larger particle accelerators and space telescopes. Most pertinently though, science weaves stories among its facts and its theories; and that brings us to the greatest story ever told – evolution.

The popular portrayal of evolution is shaped in either of two formats: evolution is a proven fact of science, or evolution is one of the most well supported theories in science. An objective understanding of the real workings of science, however, is likely to rouse suspicions about these hard assertions. For we know that science cannot be relied upon to reveal the whole truth in all circumstances, that science has its own limitations, and that science is open to interpretation and story telling. But there is a bigger issue here and one that I consider to be a condoned deception: it concerns the usage of the term ‘evolution’ as a collective whole. In reality, evolution is a body of knowledge that comprises some facts, many different theories, many more hypotheses, and much speculation. Something that is a fact is very reliable, something that is speculation is very unreliable. Teaching on evolution frequently fails to distinguish between these levels of reliability, and I believe the motivation for this equivocation is to gain acceptance of evolution as an entire world view rather than as a partial truth in a wholly more nuanced and mysterious universe. Leading institutions with an organised hierarchy of power have effectively transformed evolution into a substitute religion.

The full spectrum of reliability, from absolute certainty to absolute uncertainty, applies as much to the central tenets of evolution as to its subordinate details. The only way to penetrate an ingrained culture of obscurantism is to break evolution down into its component concepts and examine each one separately. We can begin with a few basics:

- Identification and sequencing in the fossil record is reasonably factual, though there will always be a margin of error and some degree of correction and reinterpretation.
- The principle of universal common descent – that all life forms arose from a single ancestor – holds the status of a scientific theory. It is not an established fact.
- Mechanistic explanations about how particular groups or features of plants and animals came into being are largely, if not entirely, hypothetical.
- Ideas about particular genes determining complex behaviours and personalities remain speculation.
- Using any of the above to draw conclusions about the absence of a transcendent or divine will, or of design or purpose in life or in human life, is unscientific.

The principles of Darwinian evolution are beguilingly simple: variation, differential survival, and inheritance. Unfortunately, appreciating the full limitations and deficiencies of this model requires a depth of biological knowledge far beyond that which the average person is prepared to plummet. Accepting the authority of experts, or believing that science must be right, is far less trouble than critically examining the evidence and the theory for yourself – especially when the establishment is not moved to give you the opportunity. Nevertheless, a broad range of alternative academic views is freely available for open reading and research, as this work will make abundantly clear. And a balanced judgement of science, in preference to an overly positive bias, frees the mind to evaluate more perceptively the veracity of evolutionary assertions. It even allows us to consider the possibility that biological origins are not only unexplained, but ultimately unexplainable.

Science is a cultural institution that protects its own power and sphere of influence like any other. It holds to the core beliefs that define its identity, and seeks to suppress dissenters and heretics; and it is not difficult to see how forces combine to maintain the status quo. For those who worship, obey, and submit to its awesome power, science has become a tyrannical god.

Natural Selection: The Explanation that Explains Very Little

Throughout the teachings of the biological sciences, and within the many fields of research connected to evolutionary biology, it is implicit that natural selection is the ‘driver’ of adaptation in living things. It is said to provide the generative force or ‘pressure’ responsible for creating biodiversity. This is a delusion: all adaptations *must pre-exist* before they can be subject to selection. Natural selection does not generate, originate, make, mould or modify anything. Nor can it ‘direct’ adaptive change, unless adaptive change in that direction is already on offer. Selection’s only decisive action is to eliminate. As a scientific theory, evolution by means of natural selection falls short of the task, providing little in the way of testability, predictability or falsifiability.

It is unfashionable, and in many quarters heretical, to air criticisms of the great theory of origins expounded by Charles Darwin, yet its weaknesses and limitations have long been recognised:

No tendency can be inherited any more than any other abstraction can be inherited... The workings of natural selection can therefore explain the persistency of a useful character through several generations but they fail to explain the gradual development of that character.

A criticism frequently made against the theory of natural selection is that it does not reveal the origin of the different variations but takes them for granted, while their origin is precisely the most puzzling problem.

Delage & Goldsmith, *The Theories of Evolution*, 1912, Chap 5.

The great function of natural selection is not to originate but to remove.

[We] see in natural selection an inexorable force whose function is not to create but to destroy – to weed, to prune, to cut down and to cast into the fire.

D’Arcy Wentworth Thompson, *On Growth and Form*, 1942, Chap 3.

Unlike the other sciences, in which principles of organization allow one to understand the structure of the physical and chemical world in terms of regularities and general principles, the phenomena of biology are *unintelligible* in such terms, and survival is the only law. This is why natural selection has become so important in biology: it is the only “force” that is used to explain what has happened during evolution.

The trouble is that natural selection provides a very limited type of explanation, and it fails completely on some very important and interesting questions.

Explanations in terms of history and natural selection are not very helpful since they merely redescribe what is observed in terms of functions and costs, but one is no wiser for the “explanation”.

Brian Goodwin, *How the Leopard Changed its Spots: The Evolution of Complexity*, 2001, Chap 4.

Darwin’s theory of origin of species by means of natural selection⁴ is typically summarised by the following logical progression:

1. There is variation within all species.
2. Many more offspring are born than can possibly survive.
3. Those individuals better able to survive will pass on their favourable variations to the next generation, while unfavourable variations are lost. This is the process of *natural selection* or ‘survival of the fittest’.
4. Favourable variations accumulate over generations resulting in species becoming better adapted to differing conditions. This is the process of *descent with modification* which accounts for the mutability of species, and gives rise to new species.

Natural selection *per se* is not just a theory. It is a process that has been observed in real time under natural or semi-natural conditions. However, the number of clear-cut examples – where cause and effect have been specifically isolated – is relatively small considering the great multitude of different life forms that abound on Earth, and all their individual variations. The peppered moth has remained the favourite textbook case of natural selection for more than fifty years, simply because few other equally graphic observations have come to light over that period of time. Examples where natural selection has been implicated in the real time appearance of new species are extremely rare indeed, and the veracity of such claims very much depends on how ‘species’ are defined. The dissentient view, therefore, is not about whether natural selection happens, but whether it represents the all-creative power it is generally imagined to be.

The weak link in Darwin’s chain of logic is the first one. His theory fails to account for the source of variation, and merely assumes that an adequate degree of variation is always there. A second assumption is that survival is largely determined by minor degrees of fitness, when in practice survival is often a matter of chance. And there is a

⁴ Altho Darwin coined the term ‘natural selection’, he was not the first to describe the principle, e.g. Patrick Matthew in 1831.

yet a third assumption, that selection will result in a fixed change, when more often than not it turns out to be a fluid process. If we rework the argument, this time without omitting the limitations of variation, chance and fluidity, its revelatory insight loses some of its potency.

1. There is variation within all species. (But the amount of variation is limited).
2. Many more offspring are born than can possibly survive.
3. Those individuals better able to survive will pass on their favourable variations to the next generation, while unfavourable variations are lost. This is the process of *natural selection* or ‘survival of the fittest’. (But small variations in traits are as likely to survive by chance as by selection).
4. Favourable variations accumulate over generations resulting in species becoming better adapted to differing conditions. This is the process of *descent with modification* which accounts for the mutability of species. (But the extent to which species can adapt is limited to their inherent variation, and since no one variation eliminates all others, adaptations may be temporary or reversed.)

In actuality the degree of variation that exists in all species is severely limited by developmental constraints. Conceiving of selection as a gradual process does not overcome this difficulty, for small variations still cannot accumulate to the point where they disrupt vital development. Darwinian theory succeeds only in taking the focus of attention away from the origin of variation (the real problem), and appearing to make selection the active agency. Beguiled by the appealing simplicity and ‘beauty’ of the concept of natural selection, great intellects believe they have solved the mystery of life, a commitment of faith that proves very difficult untie; but try this exercise in lateral thinking:

Ask not, “Could a chimpanzee-like ape evolve into a human being by means of natural selection?”, but rather, “Would chimpanzee-like apes contain sufficient variation within their population to enable their transformation to humankind, regardless of natural selection?”

This loophole in the law of natural selection – its failure to secure an explanation for the source of all the variation upon which it depends – was recognised by Darwinism’s detractors in the late 19th century. It is the main reason why evolution by natural selection remained very much contested for 60 or 70 years following Darwin’s (and Wallace’s) original publications. Only when an understanding of genetics developed through the 1920s and 30s did a second great evolutionary deception emerge: the invocation of random mutation as the source of all variation, and, by extension, the ultimate source of all biodiversity.

The misapprehension that selection explains how all things ‘came to be’ must be continually challenged. It is a distorted belief that mistakes the editor for the author, or the salesman for the inventor. Selection ever delivers more copies, but never makes the original. Consider your own highly complex and highly integrated human body and brain: each organ had to function, and every metabolic pathway had to work, before it

could survive. You are surviving now, because your body already exists and already functions. No genotype or phenotype exists because of its survival advantage, since existence must precede survival.

We are told that evolution drives and directs adaptation, and that it fine tunes and perfects improvement. In this sense, the term 'evolution' is being employed as a synonym for natural selection; for it is selection, portrayed as the creative principle and force of nature, that is imagined to do the driving and perfecting. But selection cannot make or cause to appear any particular adaptation, and neither can it increase the probability of one arising. The sources of variation, according to neo-Darwinian theory, are random processes; and the fact that a variation has randomly appeared in a certain direction, does not make it any more likely that a further variation will occur in the same direction. No pressure of selection or force of evolution can direct or fine tune a process that is fundamentally random.

Survival of the fittest is a process of elimination, not one of generation. If green beetles survive better than brown by virtue of their superior camouflage on leaves, then brown is eliminated and green is not. But natural selection does not eliminate less favourable genes altogether; if it did, there would be no variations left to select. So the genes for brown beetles will probably survive in the gene pool at a much lower frequency, and may even be reselected when conditions change. Competition or selection between species also leads to their elimination and not their origin, tho at this level the elimination may be permanent. This has been most dramatically demonstrated in real time through the introduction of alien species, where numerous extinctions and near extinctions of native species have been recorded globally. Natural selection eliminates, it never generates anything new. What survives is what is left, and what is left was there before it survived.

Courses in evolutionary biology teach that natural selection is not the only cause of transgenerational change, highlighting epigenetic inheritance, genetic drift and gene transfer. But these processes are not really alternatives to selection, they are simply different sources of variation; for selection will inevitably act upon variation regardless of how it is generated. Epigenetic inheritance occurs when an organism internally modifies certain gene expressions under the influence of environmental factors, and then passes those gene switches on to the next generation. Genetic drift is most likely to result in small, isolated populations, when the proportions of genes in the pool randomly 'drift' due to sampling error (genes are lost or multiplied by chance). And gene transfer is the passing or sharing of genes between different species by means other than sexual reproduction, for instance by bacterial or viral infection. Yet epigenetic changes are still subject to selection in subsequent generations, and populations that undergo genetic drift are likewise subject, except that selection in this case happens to be neutral (the traits are neither particularly adaptive or maladaptive). Novelties produced by gene transfer are also subject to selection.

Were some Lamarckian mechanism of inheritance through acquired characteristics to be confirmed, the offspring so produced would still be subject to natural selection. Domesticated animals and cultivated plants that become feral are still... Genetically modified organisms that escape into the natural environment are still... If life were seeded on Earth by aliens ancient eons ago, it would still... If life forms were crafted by some invisible teleological cosmic consciousness or divine will, they would still... Or, if Adam were created out of the dust by Jehovah God, and Eve from Adam's rib, their progeny would still be subject to natural selection.

Would it make sense, then, to believe that the progeny of Adam and Eve were forged by natural selection, just as it is believed that the progeny of mutation is so forged? No, because nothing that is subject to selection is made by selection.

Although new variations can arise during reproduction through the mixing and recombination of existing genes, the ultimate source of all genes is identified by evolutionary theory as *random mutation*. ('Random' in this context means that mutations arise independently of any pressure or influence exerted by the organism or its environment.) Note that the mixing and recombination of genes to produce new variations is also a random process. These random processes, and mutation primarily, are theoretically responsible for the origin of all genetic material, all variation, and all of the structures found throughout biodiversity. Selection, for its part, is very much a secondary cause. In the light of this postulate, why does biology's unifying theory of evolution emphasise the principle of natural selection, when selection only plays a minor role in biological origins? While a few evolutionary biologists have recognised the role of mutation as key, notably Matatoshi Nei in his 2013 publication *Mutation-Driven Evolution*, the majority would not wish to redefine evolution in terms of mutation. There are several reasons for this exaggerated faith in the power of selection, coupled with a diminution in the importance of the role of mutation:

- Aversion to portraying evolution as random.
- Inability to demonstrate the generative power of mutation.
- Distancing from old ideas of transmutation and macromutation.
- Allegiance to Darwin.

It would be inconceivable to imagine that all of life's beautiful and exquisitely adapted forms could have come into existence purely by chance, and no one would believe such a theory of evolution if it were presented that way. Hence the need to invent natural selection as the directing hand to bring design out of disorder, and make things appear as though they were not down to chance. Yet established theory does indeed teach that all structures randomly arose before they had a function, and that functionality followed as a lucky match.

When researchers report that they have isolated a mutation, what they mean is that they have found a gene that is assumed to have mutated at some time in the past. Since all genes are believed to have first arisen as mutations, there is little difference in meaning between a gene and a mutation. But *empirical science* demands that we observe *new* mutations generating new structures and adaptations, in order to provide evidence to support the *theoretical science* concerning the mechanism of evolution. If mutation is the mechanism that builds diverse anatomies and physiologies, then we should, at least occasionally, be able to record this process happening in nature. Certainly, we see beneficial mutations arising in pathogens and insect pests; chromosome mutations (polyploidy) are known to have generated new plant species; and point mutations can cause reproductive isolation within invertebrate populations, facilitating further divergence. Such observations are labelled 'evolution', but they do not in any way represent the degree of modification required to account for the entire branching of Darwin's tree of life. Mutations have never been seen, acting either singly or cumulatively, to generate a fundamentally new body plan or embryological trajectory. And nor could they, remembering that all variation is subject to severe

limitations. It may be that much of morphogenesis (generation of form) happens the way it does because it cannot happen in any other way, and mutations would always be disruptive. Developmental genes are not ‘conserved’ by evolution, it is simply the case that genes indispensable for healthy growth cannot be eliminated.

‘Transmutation’ was a pre-Darwinian term covering earlier ideas about the mutability of species, borrowed from its former use in describing the (supposed) mutability of base metals into gold. Macromutation was a 20th century invention, expressing the idea that individual organisms might spontaneously undergo sudden, large-scale alterations in form; an idea exploited in popular science fiction through its mutating monsters and mutant superheroes. Wishing to distance themselves from such unlikely phenomena, supporters of the modern evolutionary synthesis steer clear of ‘mutation’ or words containing ‘mutation’. So they prefer to see ‘transformation’ in the fossil record instead of transmutation, and define evolution as changes in the *frequency* of genes rather than changes in the genes themselves. This is partly to avoid the unwanted connotations of mutation, and partly to maintain the stance that change is all about selection. As an explanation for the history of life, however, evolution can also be defined as the process of one specie or genera changing into another – transmutation – and that process can only be explained by the changing of genes, which, at some point, requires the appearance of new genes – mutation.

If it were to be admitted that natural selection had no real power to generate new living forms, and that mutation was the real generator, it would also have to be admitted that Charles Darwin’s ‘great idea’ was not so great. No longer could *On the Origin of species by Means of Natural Selection* be considered a work of genius, though it would forever remain an extremely clever illusion. This would upset many people’s religion, for Darwin’s marble statue would have to be displaced from its dominating position in the cathedral-like main hall of London’s natural history museum, and hidden away in a dark corner alongside the forgotten statue of his old enemy Richard Owen, the museum’s original creator. Worse still, would Darwin still be worthy of his position next to Newton in the scientist’s corner of Westminster Abbey? It can happen that the veneration of the man exaggerates the value of his work.

The disinterment of Darwin (and reburial at Downe?) would be just one shock in the earthquake that would hit the established global evolutionary paradigm. In the minds of the majority, evolution *is* natural selection. Selection is the very force of evolution that puts the genes into ‘changes in gene frequency’ and the purpose into ‘evolutionary purpose’. To discard the idea of natural selection, in favour of mutation, would feel to many like discarding the very idea of evolution itself.

In the face of persistent challenges, evolution by natural selection is typically defended as ‘one of the most well supported theories in science’. This is an extraordinary claim, given that the theory can be neither tested nor falsified, nor applied to make any reliable predictions. Since every living organism must encounter the trials of survival, and there are no circumstances under which selection cannot act, it is always possible to invoke selection for any past event, and never possible to exclude it. Conceptually, there is nothing that selection cannot explain, and no hypothesis it cannot support amidst the storytelling of origins. But there is no method of validating or falsifying the role of *specific* selection pressures that may or may not have acted in the distant past. This inability to test the forces of selection can be apprehended when considering, as an example, theories about the origins of human bipedalism (walking on two legs). Tool and weapon use, adaptation to savannah grasslands, and postural feeding (reaching for fruits) are just three of a dozen or more historical proposals

advanced over the decades; none of which can be supported or falsified with the slightest level of confidence. Theories or hypotheses that cannot be tested or falsified are not proper scientific theories: they are imaginative speculations dressed up to look like credible science.

Theory of natural selection is undermined by a still greater problem: multiple factors. Organisms have thousands of genes and are exposed to thousands of biotic and abiotic factors in their environments. If one individual sustains life longer than its sibling, to which particular genes or factors can this success be attributed, if not simply to chance? In the great majority of cases we could never tell, for it is not individual genes that are eliminated in nature but whole organisms. The indeterminacy of specific survival factors reduces the notion of 'survival of the fittest' to a meaningless tautology or circular fallacy. The 'fittest' are defined as those that survive, and without knowing precisely what bequeathed the survival edge, the phrase means nothing more than 'the survival of those that survive'.

The difficulty of multiple factors, together with the random nature of variation, also means that natural selection rarely has any predictive value. Using Newton's and Einstein's theories of gravitation and relativity, very reliable predictions can be applied to astronomical events and space flight trajectories. But Darwin's theory of evolution by natural selection offers no predictive certainty about future events. In probabilistic terms it predicts that some things will adapt and some things will not survive, but in the majority of cases it cannot predict how or when; and it certainly cannot predict what will 'evolve' in the long term. A theory that has little no ability to make useful predictions in the real world is not a proper scientific theory. But this failing does not seem to arrest the imagination of theorists who believe they can identify single factors in the distant selection of every anatomical and behavioural adaptation in the history of biodiversity. And so the storytelling goes on.

Natural selection shows how adaptive variations multiply through populations over generations, but it doesn't explain a whole lot more than that. To endow it with the creative power to account for the whole of biodiversity is to succumb to a magical fantasy, substituted in the absence of any real scientific understanding in terms of physical or chemical mechanisms. If you are a professional biology educator or researcher, it must be difficult to come to terms with the realisation that you have been duped. Evolution by natural selection is the greatest scientific fraud ever perpetrated, and if I were to summarise the deception in a sentence, it might be: "Natural selection does not explain how any aspect of life first came to exist, yet most people seem to kind of believe that it does."

The Sweet Shop

Choosing candies in a sweet shop doesn't mean that you made them. No matter how many of your selected candies you buy, and no matter how many you leave unsold, none were made by you. However popular or unpopular your choice, all varieties were available before you even entered the shop. Occasionally, either by accident or design, the shop invents a new candy; but no one who buys these novelties is their maker. Your choice may not be random, but you have no control over the selection on offer.

Later, you can show your selection to your friends, and then pretend that you made them.

What Does ‘Life Without Evolution’ Mean?

‘Life without evolution’ is a statement of rejection levelled against the institutionalised evolutionary world view. It can be applied to three main areas of thought:

1. Interpreting the history of life on Earth.
2. Fundamental concepts in biology.
3. Valuing human dignity and personal spirituality.

It is a re-established observation that most of life, most of the time, is not evolving into new species. Whether recorded through the historical or the prehistoric, most species remain more or less unchanged for long, or very long periods of time. Life is not continually evolving – except in a trivial sense – and no evolution is the norm.

The history of life, as evidenced through the fossil record, does not conform to the popular account of evolution as a long, slow process of gradual changes and extinctions. Eldredge and Gould’s expounding of the theory of *punctuated equilibria*, which ignited vociferous debate in the scientific literature all through the 1970s and beyond, was essentially a reacceptance of what had been discovered by Cuvier in the early 19th century: that taxonomic groups of all ranks tend to appear and disappear abruptly in the geological strata with little evidence of numerous intermediates. Through the intervening decades, Darwinists had assumed that change in the history of life must always have been gradual and continuous, believing that future discoveries would accrue to support the predicted pattern of transformation. When the required evidence eventually failed to materialise in any consistent way, the defenders of Darwinian gradualism resorted to inventing sub-theories to account for apparent imperfections in the fossil record. For instance, by proposing that gradual change must happen in small isolated populations that fail to be preserved because of their scarcity. But the fact remains that the geological documentation of ancient life, as it presents itself, does not exhibit a process of evolution; at least not in the way that most people have come to imagine it.

In whatever way the many distinctive forms of plants and animals came to exist, evidence shows that once they appear their basic morphologies and anatomies change very little over very long time frames. The popular portrayal of living things as being in a constant and continual state of evolution is therefore false.

When I was at school in the early 1970s learning biology at both ordinary and advanced levels, evolution was included towards the end of each syllabus almost as an extra-curricular topic. Just a couple of years later, upon starting a 3 year undergraduate course in life sciences at a London polytechnic, there had been a sea change. Dobzhansky’s maxim, “nothing makes sense in biology except in the light of evolution”, had taken a tenacious grip on the hearts and minds of biology lecturers.

In terms of practical teaching, what ‘in the light of evolution’ really meant was to impose a mindset of *adaptationism* – the assumption that each individual feature of an animal or plant arose as a separate adaptation that enhanced the survival of the whole organism. It therefore became necessary not simply to understand the functioning of living systems, but to *justify* their existence according to their survival benefit. This new emphasis on justification, it seemed to me, led to the invention of ‘just so’ stories,

whereby the imagined adaptive advantage of a character resulted in the reinterpretation of its function.

The adaptationist approach, as a supposed explanation for the existence of every detail of every living thing, frequently infected me with questions of scientific credulity. Biological systems work through the collective co-operation of many parts or organs, while individual organs may serve more than one purpose within the whole. How, then, could the existence of parts or features be explained in terms of individual adaptive purpose, when each part serves no possible purpose in isolation. The same difficulty arises in considering the multiple interactions between genes and their functions. In the case of characters or behaviors that appear to have no important survival function at all, or may even be considered maladaptive, the adaptationist will try to create an (unconvincing) ‘evolutionary purpose’ in order to account for its existence. These accounts are given, gratuitously, in support of the false belief that adaptation must always be the necessary agent of genesis of a feature, when in fact a feature has to be generated before its adaptive function becomes apparent.

Nor is the adaptationist view a balanced one, for every life ‘strategy’ has its disadvantages as well as its advantages. For example, night-flowering plants capture the benefit of night-flying insects, but they lose the employment of the far greater number of day-flying pollinators – so is night time pollination really an overall advantage, and if not, why would plants adapt to it? The evolutionist then falls upon the cost/benefit solution, but unlike the economist has no way of quantifying or proving the proposal. As more and more factors come to light in the analysis, the chances of procuring a simple ‘economy of nature’ explanation rapidly diminish.

The assumption in biology that everything is adaptive, and that adaptation is a creative force, needs to change. It is based on the fallacy that survival of an adaptation explains its original existence. While the principle of random genetic drift is considered as an alternative to adaptation in evolutionary theory, few interpreters seem to give the ‘neutral theory’ much weight in the grand scheme of things. The identification of an adaptive or ‘evolutionary’ purpose lends the explanation or ‘story’ an ostensibly more scientific or logical flavour than merely invoking chance factors.

The second false central doctrine in current biology is the belief that all is determined by genes, and that the sole purpose of every living thing is to pass on its genes. This must be replaced by an understanding that cause and effect operate at all levels of organisation, and that genes can lie at the bottom as well as the top of a chain of events. Life forms cannot be comprehended purely in terms of their genes, just as it would be fruitless to analyse the subject or meaning of an artist’s painting purely in terms of its constituent pigments.

To study biology ‘without evolution’ is to adopt a holistic perception of the living world, where complex interdependencies replace simplistic reductionist causality, where co-operation among living things is seen to be every bit as prevalent as competition, where constancy exists alongside change, and where the stage is set for our spiritual as well as our material nourishment. Perhaps the most virtuous aspiration in dispensing with ‘evolution’ would be to communicate a greater emphasis on that which is unknown. Our knowledge of how form emerges during embryological development is very far from complete, and as to how form emerged in the first place, we remain in a state of almost total ignorance.

Realising that creation by natural selection is a delusion, and that the given ‘understanding’ of evolution is a false doctrine, we must both modify and moderate the language of biology. To say that this or that animal or plant ‘evolved’ to occupy its ecological niche, is to buy into the pretence that we rationally comprehend how it came

to be so: for it is generally assumed the ‘evolved’ means ‘by a process of natural selection’. Certainly biology recognises that every organism is adapted to the conditions in which it lives, and that selection in natural communities is occasionally observed to swing the balance of small-scale variations. But it is the terminology of evolution that perpetuates the pseudo-scientific dictum that selection must account for the origin of all species, including all their radically diverse structural and physiological adaptations to living in water, on land, and in the air. Biologists wishing to separate the science from the science fantasy will therefore dispense with the word ‘evolution’ altogether, and refrain from describing things as ‘evolutionary’ or as having ‘evolved’.

If evolutionary thinking has spawned a narrow and artificial perspective on the living world, then its effect on how we *value* the living world, and ourselves as part of it, has been far more devastating. Evolutionary philosophy, or *evolutionism*, has constructed a highly negative and cynical image of human existence: typically, we are the product of Darwin’s “war of nature” surviving as Dawkins’ “lumbering robots”, and having no special standing over and above other animals that happen to share a similar body plan. Our spiritual nature is degraded because evolution places the emphasis for success on less virtuous behavior, such as competition and self-interest, while undermining the higher virtues of altruism, compassion and love by reinterpreting them as self-interest in disguise operating through kin selection.

That this base view of humanity, and of all life, has spread from science to mainstream popular belief (or was it the other way round?), can be judged from the words of the highly influential and respected television broadcaster, and doyen of the realm between nature’s discovery and nature’s drama, David Attenborough. In the ten part series *Life*, first broadcast in 2009 as part of the BBC’s ‘Darwin Season’, Attenborough narrates the opening statement of Episode One:

Our planet may be home to 30 million different kinds of animals and plants, each individual locked in its own life-long fight for survival. Everywhere you look, on land or in the ocean, there are extraordinary examples of the lengths living things will go to, to stay alive.

The recurring message communicated through Attenborough’s documentaries tells us that the infinitely wondrous, intricate, mysterious and often deceitful behaviors captured on film, are not just diverse and inventive ways of surviving, but in principle nothing more than that. Survival is given to be the *raison d’être*, the driving force of invention, even tho in actuality nothing can survive until after it has been invented. If we conform to this mode of thinking, then our perceptions of beauty, awe, grace, and clever design in nature – but also of its deception and raw horror – must also have ‘evolved’ for a survival purpose. Forget that it takes a conscious, sentient and intelligent mind to recognise these deeper attributes of the natural world, for that might suggest such a mind also lay behind the creation of it. So Attenborough’s eulogies are reserved for his hero of science, Charles Darwin, and not for any higher creative power that might be inferred to permeate or orchestrate the earth’s immaculately balanced living whole.

Survival is the basis of the Darwinian reductionist interpretation of the living planet, but Attenborough has also embraced the Dawkinsian version, seen in his scripting of the closing statement for the same episode of *Life*:

...individual animals strive to reach this one ultimate goal: to pass on their genes and ensure the survival of the next generation. Ultimately, in nature, that is what life is all about.

Involved in the commissioning of a vast number of top quality and commercially successful wildlife documentaries produced over more than five decades, David Attenborough has also used his work to promote what is essentially a nihilistic worldview: that all living things, humans included, are but the instruments of their chemical genes. Under the Darwin-Dawkins paradigm, the purpose of the human body and brain, if any, is to act as a temporary food source for the passing of these genes, only to be later discarded when worn out. All notions of any greater moral or spiritual purpose to existence, beyond the mere survival of what happens to survive, must then appear to be illusory.

Perhaps the first step in regaining sanity is to counter Darwinian cynicism by ignoring the quasi-scientific claims of biological determinism and embracing the philosophy of moral realism. Philosophical realists believe that abstract entities such as morality, feelings, beauty, natural laws, mathematics, and even consciousness itself, have their own independent existence in the cosmos. They are not artifacts of the mind or constructs of society, and nor are they reducible to simplistic physical forces or particles. Abstract realities emanate from the cosmos itself or from God, and are merely received by the mind or ones individual consciousness and experienced through an intuitive understanding of truth (which is in itself another gifted abstract quality). Free will is also considered to be real, and the concept of 'will' can be extended to the greater actions or workings of the cosmos or to God.

In practical terms, rejecting evolution and evolutionism means that one no longer believes that humans are programmed or predisposed by evolution to instinctively follow certain (particularly negative) behaviors, such as favouring unhealthy sugary fatty foods, the consumption of alcohol, or the taking of drugs; nor does one any more believe that genes provide a reason or excuse for harmful indulgence or over-indulgence that is beyond our control, or a cause for violent or criminal behavior. Neither do we accept that parts of the human body, such as the back or the feet, are 'flawed' due to our evolutionary history, and are therefore inevitably prone to mechanical problems. (Not everyone suffers back or feet problems, despite having the same anatomical design.) Nihilistic and defeatist evolutionary mentalities are replaced with a confidence and faith in higher spiritual awareness and a regard for holistic solutions. Genes are not autocratic overlords, and causality between biochemistry and mind, or between matter and spirit, can drive in both directions.

Professionals from all walks of life now claim to know that we are 'hard wired' to follow all manner of trivial behaviors, from how we respond to advertising to what we find appealing or unappealing in other people: a demonstration of how both evolutionary psychology and the language of computer 'thinking' has come to dominate popular culture. It is a culture that believes we all have mechanistic minds that all think in the same way and for the same reasons; and it is the same culture of belief employed by those seeking to dominate, control, and exploit the masses. The spiritual view, in complete antithesis, allows for human behavior to be malleable, unpredictable and capricious, and regards each person as a unique soul.

Evolutionary 'explanations' for feelings and emotions are further to be ignored. Whether we speak of love, warmth or generosity, or of jealousy or bigotry, or of bereavement or depression, none should be devalued as mere survival or adaptive traits. These are real spiritual states that help and guide us to grow and evolve metaphysically

– a purpose infinitely more important to human beings than the evolution of the physical body and brain.

Human beings are half matter and half spirit; but evolutionary science is a spirit denier. Based on our mere physical size, the material evolutionist concludes that we exist only as tiny insignificant groups of atoms formed within a vast impersonal universe. In spiritual thought, however, we begin to understand that we are centres of consciousness capable of extending our awareness and appreciation into the entire reaches of the cosmos, at once embracing and uniting with it. In recognising something greater than ourselves we are not diminished in importance, but elevated to a shared part in the awesome whole. Cosmic evolutionists also debase our planet of life by counting it as one small rock among countless equivalents situated throughout countless galaxies. Better to view Earth as a precious sapphire hidden among trillions of grains of worthless desert sand.

The philosophy of evolution teaches that humans are ‘not special’ in their relationship with other animals, based on the scientific premise that humans and other animals share common material origins, and are all equally descended from chance chemical mutation with no metaphysical guidance or input. Evolutionary philosophy is able to make this claim because it denies the existence of any metaphysical reality, when, indeed, it is the spiritual component of humankind that renders it special. This assertion must be qualified by the fact that certain physical attributes of the human body and brain, allowing language and dexterity for example, and not found in other animals, permit the outward expression of more expansive conscious states. While the evolutionist builds evidence for the ‘close evolutionary relationship’ between human and chimpanzee, by focusing on physical and behavioral similarities, the creationist remains aware of the deep gulf that separates the abilities and perceptions of the human mind from that of any other sentient or conscious being. From a purely biological perspective, it is logical to class *Homo sapiens* as a great ape, just as the specie is classified as a primate and a mammal; but on a metaphysical scale we occupy a distinct and higher class. We are not *just* animals.

If Man was made in the image of God, he was also made in the image of an ape. The framework of the body of him who has weighed the stars and made the lightning his slave, approaches that of a speechless brute, who wanders in the forests of Sumatra. Thus standing on the frontier land between animal and angelic natures, what wonder that he should partake of both!

From Hallam, cited in Charles Lyell, *The Antiquity of Man*, p501, 1863.

Yet a higher conscious awareness, combined with a stronger force of will, should not be confused with a higher moral or transcendent state. Spiritual nature can range from the malevolent to the divine, and human will is free to direct its intentions to either one. The elevated intelligence and powerful force of will bestowed upon humans enables them to control nature, utilising its laws, to a degree far beyond the abilities any other animal kind; but in so doing, they may cause great harm as well as benefit to other beings. But regardless of how these superior abilities are used, *Life without Evolution* rejects the notions that humans are not special, of no cosmic significance, and devoid of free will.

If you view humans in a purely materialistic sense, as having evolved through the chance formation and fortunate survival of molecular combinations, or in a cynical sense, as arising out of brute survival and selfish gain, then you are likely to have

developed a low opinion of humanity, and of yourself.⁵ But focus on the spiritual evolution of the human being, and a more fulfilling and meaningful purpose to life becomes obvious. Spiritual evolution may happen in groups of people or even in humanity as a whole, but most importantly it is the responsibility of the individual soul. The path to enlightenment, or the search for the sacred, is found within, for no lasting reward can be obtained in the physical world. However, once discovered and developed, knowledge of the sacred is transferred to ones perceptions of the external world.

Our sense of spiritual well being (something that science attempts, but generally fails, to understand as ‘mental health’) is restored by spending time in the natural environment or by having access to a park or garden; not because we ‘evolved’ to live in wild and beautiful landscapes, but because there is little spiritual sustenance in the ugly and noisy inner city.

It is only by studying spiritual knowledge, and not material science, that we learn to value ourselves and value the natural world. We value other people, other creatures, and all living things, not because they are useful or profitable, or because they are evolutionary cousins, but each for its own special existence. Yet we cannot love the parts without loving the whole, and the creation as a whole; and that is how we find our harmony with the planet.

Design has not been Disproved

Consider this simple analogy. A communications satellite is built (and launched) using advanced knowledge of the laws of physics and chemistry. But it could not be built, like a piece of space rock, by the laws of physics and chemistry acting on their own. It requires a designer with intelligence and intention: a mind. Yet many are those who wish to believe that a living organism, whose subtle and complex construction is orders of magnitude more sophisticated than a man-made satellite, can be made in the absence of a directing mind.

The Creationary Synthesis

Two antagonistic drives, the search for truth and the protection of core beliefs, are felt by us all. The first requires courage and the second may reflect a lack of it. To be ruled by fear is a sure way of not reaching your potential, while the truth is always empowering once obtained. Whence does courage emanate, and how do we find it? Courage does not reside in genes, or in bodies or in brains, and nor does truth. Both are gifts bestowed by the spirit realm or the divine source. One has only to accept them.

This is not to say that truths cannot be discovered via the scientific method. Of course they can, but science will never reveal the whole truth. If you only study science, you will learn nothing of philosophy; and if you limit learning to the physical realm, you remain blind to the metaphysical. Just as a person who concentrates entirely on material needs will neglect their spiritual prosperity, so a person who interprets all according to

⁵ The idea of ‘selfish’ genes is in itself contradictory to materialism, for to be selfish is to express a spiritual or anthropomorphic quality, albeit a negative and unenlightened one.

material evolution will never come to understand all the spiritual elements of their own existence.

The premise of the creationary synthesis is simple enough: that there is immaterial existence as well as material, metaphysical alongside the physical, and supernatural woven with the natural. Standing as it does as a purely materialistic project, evolution could therefore never explain the origin of everything; and indeed it does not. The Darwinist may concoct endless theories and sub-theories to account for this or for that, attempting to force all facts and figures into the suitcase of preconceived ideas; but that is no way to the truth.

The creationary synthesis is thus a holistic approach to origins that combines science with philosophy, the physical with the spiritual, and, most importantly, the known with the unknown. In relation to the orthodox evolutionary theory of origins, the creationary synthesis begins with and builds upon the following observations:

1. Geological and fossil evidence shows that there was a long and changing history of different life forms on the planet. However, this same body of evidence does not appear to support a pattern of gradual transmutation or transformation consistent with Darwinian principles.
2. Natural variation and natural selection can cause populations and species to undergo minor genetic and phenotypic changes over time. However, these same factors have never been observed to generate new organs, or progressive levels of organ complexity and integration. Nor have any other natural factors or mechanisms been observed to produce such effects.
3. There is little evidence of a continuum between different animal and plant structure plans or organ systems at the level of phylum, class, or order, in either living or extinct forms. In general, they appear to be largely discrete.
4. There is both material existence (e.g. atoms and energy) and immaterial existence (e.g. mathematical laws and physical constants) in the cosmos, and living things are also subject to both. While immaterial realities may be discovered, experienced and utilised at will, their origins cannot be reduced to material cause and effect – indeed, they cannot be reduced at all.
5. Conscious awareness is a purely subjective reality: it cannot be objectively observed by an experimenter, nor reduced to physical, chemical, or biological causes. No scientific method is able to show whether the ant or the armadillo has conscious experience. Documented accounts of a variety of subjective experiences also suggest that consciousness may exist independently of the physical body and brain.

The contrast between the evolutionary synthesis (neo-Darwinism) and the creationary synthesis could not be greater. Whereas the former encourages the belief that the origins of the living world have been adequately explained by material science, at least in principle if not in detail, the latter recognises that this claim is either delusional or dishonest: material science has in fact explained very little. The creationary synthesis places far greater emphasis on the limitations of our scientific understanding, and on the limitations of the scientific approach in general, because it accepts that elements of reality and of our conscious perceptions are not subject to reductionist or deterministic

cause and effect. These elements permeate the cosmos and our consciousness, and must derive from a transcendent source that eclipses all human powers. The way we learn about and understand the metaphysical is different to how we understand the physical, but it is of no less importance.

For spiritual development we have the inherited resource of centuries of religious, philosophical and spiritual teachings, harvested from the most diverse of cultures; and we can learn from them all. At the same time, we cannot discover our place in nature by removing ourselves from it, or by destroying it. Prior to the scientific age, all human communities perceived a web of connection and a balance between physical and spiritual worlds. The 'Enlightenment' has delivered overwhelming advances in our scientific and material gain, but at the expense of developing a greater understanding of the spiritual – true enlightenment. The future health and harmony of the planet, and of our own existence, depends upon a redressing of that balance.

In posing those age-old questions “How did we get here, and why?” ignore the rantings of the brain. If your heart be truly humble, yet brave, the answer will dawn. Not in words, or thoughts, but in an unexpected burst of delight.

Let Nature be your teacher:
Sweet is the lore which Nature brings;
Our meddling intellect
Mis-shapes the beauteous forms of things.
We murder to dissect -
Enough of Science and of Art;
Close up those barren leaves:
Come forth, and bring with you a heart
That watches and receives.

- Wordsworth