

The Origins Debate

Science and the Christian Faith in Discussion

The various scientific and theological views on creation and the origins of life
An examination of their persuasiveness

Display of Mind

by Vernon G. Wilkins

A Considerable Speck

A speck that would have been beneath my sight
On any but a paper sheet so white
Set off across what I had written there.
And I had idly poised my pen in air
To stop it with a period of ink
When something strange about it made me think ...

It paused as with suspicion of my pen,
And then came racing wildly on again
To where my manuscript was not yet dry;
Then paused again and either drank or smelt –
With loathing, for again it turned to fly.
Plainly with an intelligence I dealt ...

I have a mind myself and recognize
Mind when I meet with it in any guise
No one can know how glad I am to find
On any sheet the least display of mind.

Robert Frost, 1939

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The Origins Debate

Science and the Christian Faith in Discussion

**The various scientific and theological views on creation and the origins of life
An examination of their persuasiveness**

Vernon G. Wilkins

- 1. Atheistic Darwinism (AD)**
- 2. Theistic Darwinism (TD)**
- 3. Young Earth Creationism (YEC)**
- 4. Intelligent Design (ID)**
- 5. Is there an Alternative?**

Preface

- ▶ The author has written this paper in response to interest from peers in the Christian faith arena because, they say, there is a lamentable scarcity of overviews of the Origins* debate written by non-specialists who, like the author, have both Scientific* and Biblical Hermeneutical* interest, but no scientific axe to grind (* = see glossary)
- ▶ The author is a mathematician with degree and teaching qualifications, and has had a life-long interest in other sciences, having majored in these at advanced high-school level, and in the rigour of logical argument and probability theory
- ▶ He also has a degree in theology – and has had a life-long interest in biblical hermeneutics and the interface between science and religion
- ▶ He has had careers in both pure and applied mathematics and statistics teaching, and in biblical studies teaching and training; also as a church minister/pastor in the Church of England
- ▶ The following is a considered overview of four main positions in the Origins debate from someone with both a science and theology background, albeit not a science specialist, who has taken a long hard look at them all and who has read widely on it for many years

Introduction

- ▶ This paper is for non-specialists, by a non-specialist; it gives a brief overview of four principal Origins viewpoints; it being brief, there will of course be frequent exceptions, often slight, to the generalised statements and summaries here
- ▶ It's quite possible that some readers, on viewing the vast array of detail below, may think my protestations to be a non-specialist a little disingenuous. But, no, really, I am a non-specialist – an enthusiastic amateur, yes indeed, and I have had a lifelong interest in the subject of this paper; but I last formally studied science at high-school (UK Advanced Level), and have never done formal research nor have published in any science field
- ▶ I am writing this expecting the readership to be predominantly within the arena of Christian faith. But all readers are welcome! Those of no or different religious persuasion may perhaps

be interested, intrigued, and perhaps amused or even bemused, to eavesdrop on a discussion conducted from a committed Christian viewpoint (but I don't mean to be patronising!)

- ▶ Likewise I am writing for non-specialists, expecting the readership to be predominantly 'not-yet-decided', or confused, on the issue of Origins. But all readers are welcome! If, reader, you are a specialist who knows your onions, and/or you are already firmly decided on the Origins issue, and with enthusiasm and commitment to your chosen viewpoint, then you may find that I drive you up the wall in the pages below! If you can acquire some gecko-like tenacity, then stay with me, please
- ▶ Under each of the four main headings representing the four main views, I detail a few introductory explanatory points to give a brief overview of the position; then I explain the extent to which I (and it's a personal, highly subjective view) am or am not persuaded by the position's own arguments; following that, in each case, I make a few observations of my own, which are also my own personal analysis of the respective Origins position
- ▶ I write here in bullet points deliberately, so that the final result is in note form rather than prose
- ▶ I don't in this paper look at views such as the Day-Age Theory or the Gap Theory for the handling of Genesis 1-3 *et al*, as these and others are predominantly biblical hermeneutical arguments, and don't so much impinge on the scientific Origins debate; an overview of the hermeneutical debate in its own right awaits another paper (forthcoming)!
- ▶ I also in this paper don't examine the loosely styled 'Old Earth Creationist' position, partly because it's a misnomer: Theistic Darwinists are Creationists on any fair understanding of the term, and they are Old Earthers, but the term 'Old Earth Creationism' usually means 'Old Earth *non*-Darwinism'. But also, there isn't really a concerted body of belief to this position, other than the rejection of Young Earth-ism on scientific grounds, and Darwinism, also on scientific grounds.
- ▶ A term occurring with an asterisk thus* is the first occurrence in the paper hereafter of a term which has a glossary entry

The need for persuasion

- ▶ The 'Persuasiveness' sections of this paper with its ✓s and ✕s are its principal purpose, though only a fraction of the content of what follows; let me explain in the next bullet points
- ▶ In the Origins debate, there are countless expressions of firm opinion, often vigorously or even dogmatically expressed, from specialists in their scientific field, each arguing one main view or other against one or some or all of the others, and with great confidence in the veracity of the particular theory they hold; such books, papers, articles, lectures, presentations abound; but the specialists don't agree with each other!; virtually every one has, of course, by the very nature of the case, an axe to grind (I don't mean this pejoratively), and they argue their case with enthusiasm; non-specialists often feel disbarred from comment ("*They* are the specialists, *We* are not: what right have *we* to pronounce?"; experience of much such!)
- ▶ But if a specialist is utterly convinced of their case, surely they should be able to *persuade* a thoughtful, informed and capable non-specialist by careful, cogent explanation and reasoning (only a very rare wretch, surely, would dismiss all non-specialists as totally gormless?); so the principal significance of this paper is, in my intention at least, to assess the *persuasiveness* (or otherwise) as I see it of the various positions, as they have sought to commend themselves to

their readership/audience; if a specialist either can't or won't *persuade* me, then I feel they have no right to expect me to accept their view

- ▶ Sadly, there are some such wretches, and they are more than capable of declaring unilaterally that those who disagree with them are “know-nothings” or the like. Then those they've so peremptorily dismissed as ignoramuses are disbarred from discussion by the very fact of their disagreeing. These are the tactics of the bully
- ▶ Another point may be made about those who exert their influence from a dogmatic, polemical stance. They are not doing science, whatever they might protest, in making “you're not allowed to disagree with me” claims. When their derision of another's point of view defies normal accepted logical and scientific reasoning by their yelling at their opponents, they are doing pseudo-science or even anti-science, which they then turn into a new religion and make themselves priests of it by their declaration that what they say is self-evidently true
- ▶ Suppose reasonably intelligent, fair-minded, unprejudiced Non-specialist Noreen is discussing Origins with dogmatic Specialist Sebastian:
 - Noreen:** “I find it difficult to accept your viewpoint, I'm afraid – I understood it as it was explained to me, but on due consideration it doesn't to my mind add up”
 - Sebastian:** “Are you sure you're fully *au fait* with the viewpoint – can you tell me what faults you find with it? Eh?” (sometimes tauntingly)
 - Noreen:** “Er, well, no, because I'm a non-specialist, and couldn't possibly repeat all the reasoning here and now, or why I found it unpersuasive – all I can say is that I certainly followed the explanation given to me, and found it unpersuasive at the time”
 - Sebastian:** “Well, then, if you can't tell me why now, you don't have a case, do you?”Subtext: “You're out of your depth; you must change your mind”; personal experience of much such! But this is grossly unfair – it's Sebastian who inhabits the world of his own viewpoint and rehearses it day in, day out, and who is on top of all the thinking and all the knowledge – or should be; Noreen can't possibly be expected to have it all at her fingertips; the point she is making is that when the specialists have tried to persuade her, the specialists have failed; it's Sebastian who has to come to terms with that; the onus is on Sebastian to persuade, not on Noreen to be able at the drop of a hat to repeat all the arguments
- ▶ Or **Noreen:** “I find it difficult to accept your viewpoint, I'm afraid – as far as I can see it doesn't add up”
 - Sebastian:** “Oh, that just beggars belief”Rude and dismissive; experience of much such, I'm sad to report
- ▶ Or **Noreen:** “What do you think of X's view?”
 - Sebastian:** “I don't agree with him”
 - Noreen:** “Oh, I was rather impressed; cogent, made sense to me, etc. Why don't you agree, may I ask?”
 - Sebastian:** “I just don't”Experience of much such! Sebastian makes himself a priest of his religion – “What I say is true and to be accepted”
- ▶ So it's perfectly alright for us non-specialists to form firm opinions based upon the persuasiveness, or otherwise, of the specialists' presentation of their case, just so long as we are continually thoughtful and unbiased in our deliberations, and so long as we do follow the arguments; if perchance, dear reader, you end up agreeing with me that you find Atheistic Darwinism, Theistic Darwinism, Young Earth Creationism and Intelligent Design (but see next bullet point on the latter) all unpersuasive (or not completely persuasive) as final paradigms,

then be reassured, that's quite alright. At least I myself am unabashed to find myself in this position

- ▶ Intelligent Design does have some considerable sympathy from me, as I will indicate in due course. But it's not a *final* paradigm as I shall explain, not least in its stopping short of identifying the 'designer', and this is one of its Achilles' heels
- ▶ Theistic Darwinism has some sympathy from me too, in so far as it seeks to preserve a raft of what it is persuaded are irrefutable scientific truths without resorting, as Atheistic Darwinism does, to a rejection of design and divine origins altogether (but you'll see that I consider TD to be deluded in acceptance of these so-called truths)
- ▶ I have some sympathy for Atheistic Darwinism in some of its manifestations, where the rejection of Theism is open, honest and consistent (sometimes, though far from always, the case), and where the consequent treatment of their opponents is courteous, respectful and fair (also sometimes, though far from always, the case)
- ▶ Young Earth Creationism wins sympathy from me too, especially, and in shed-loads, in its wholesome respect for God's revelation in scripture. You'll see later that I consider the YEC hermeneutical method to be fundamentally flawed, but their principled commitment to their view of the Bible is admirable in my view
- ▶ I intend this paper to be an honest evaluation of the four main views I deal with. But I would shrink in horror from any sense of disrespect for sincerely held views which I don't agree with. No pejoration or disdain is intended in these pages
- ▶ As already argued, my views expressed in this paper are by the very nature of the case subjective. But that is the whole point. There is no lack of literature in which a well-qualified specialist proponent of one view or another enthusiastically and trenchantly expresses their opinion on why their view is right and all others wrong. But there is a big gap in the literature where non-specialists give their reaction and response to all views, coming from no commitment to any particular settled viewpoint. This paper is a meagre and meek attempt to make such an offering
- ▶ If by the end of this paper you agree with me that all alternatives on offer are finally unpersuasive, then join me in an alternative 5th category of those who believe that the natural world certainly gives the appearance of design, and design for a purpose, when examined from a scientific standpoint, yet acknowledging we do not have all the answers concerning mechanisms and pathways, "We don't know" being a permitted verdict on many questions; who believe that the Bible is a book concerning the creator's dealings with humankind, but not a cosmic textbook; and who find no ultimately troublesome conflict between the two fields of science and biblical theology, whilst admitting there may be a difficulty or two here or there in our understanding. An example of this latter category is the 'nature red in tooth and claw' difficulty in reconciling an Old Earth view with a firm belief in an actual Fall and Curse – but see later for a treatment of this
- ▶ Thus this paper is *by* a thoughtful non-specialist *for* thoughtful non-specialists, and its deliberate purpose is to assess the *persuasiveness* of the specialists' arguments as they are presented to thoughtful non-specialists. It's an overview of the whole specialist camp in all its various and dissenting viewpoints, from someone right outside the camp. Hoping, therefore, that it will be of some use and interest
- ▶ It would be good to see lots more honest, unprejudiced contributions towards this debate from humble specialists in the science fields who are willing to say, "We don't know", when they don't know

Note:

- i* These bullet points below, in each section, give a brief introduction to the relevant view – its own claims, what it believes and how it argues
- ✖ These bullet points below declare the present writer's opinion on how un-persuasive the respective 'Origins' viewpoints are in what they themselves affirm or deny. ✖✖ means I'm totally unpersuaded, with little mitigation; ✖ means I'm ultimately unpersuaded, but I can see some, or even quite some, merit in some of the arguments, and so I assign a degree of provisionality to my verdict. This is, of course, a subjective evaluation (i.e., it's my personal evaluation) – but that's the point of this paper as I have argued: a hopefully thoughtful and considered non-specialist respondent has every entitlement to make an evaluation of the reasoning of others presented to him or her
- ✓ Likewise when the viewpoint is persuasive. ✓✓ means I'm totally persuaded; ✓ means I'm persuaded, on balance, but I can see some, or even quite some, merit in some of the arguments against
- These bullet points following are the present writer's own brief evaluation of the respective viewpoints

Chapter 1. Atheistic Darwinism (AD)

AD – Explanation

- i* Darwinism*, or Darwinian Evolution, or Darwinian Evolutionary Theory, is often abbreviated to just 'Evolution' (particularly by Darwinists; anyone who doesn't accept *Darwinian* Evolution is often termed an anti-Evolutionist, and some who accept a theory of Evolution, but not Darwin's, are often claimed for the Darwinist cause by guile) – but there are other non-Darwinian evolutionary viewpoints – see the note on this in the Glossary; the term 'Darwinism', and that alone, will be used in this paper for 'Darwinian Evolutionary Theory'
- i* Darwinism is essentially Random Genetic Mutation* + Natural Selection*, these between them explaining the evolution of all life from 'a few forms, or one', as Darwin put it; this is Common Descent* (Universal Common Ancestry), which Darwinism claims follows from the first two. These three features are the bedrock of the Darwinian hypothesis; the term 'Descent with Modification' has also been used briefly to summarise the position.
- i* There is also a random process known as Allelic (or Genetic) Drift* which works non-adaptively alongside Natural Selection in small populations, but for simplicity we shall not discuss it in this paper – it affects no issue discussed here
- i* Neo-Darwinism claims not ancestry from 'a few forms or one' (as Darwin), but rather that all life originated from chemicals
- i* There is a sizeable body of opinion within the respected scientific community, and has been for decades, which has serious scientific doubts (on a wealth of different fronts) about Darwinism, especially about its capacity to bear the weight that is thrust upon it by Darwinists
- i* It should be observed that neither Random Mutation nor Natural Selection in themselves are controversial; they are almost universally accepted as being real and observable and happening all the time. What is controversial is that they are capable of explaining the entire living world (Common Descent, especially Common Descent from chemicals)
- i* These three essential features of Darwinism work in a totally non-directed manner – there is no prescribed goal or teleological purpose towards which Darwinian Evolution operates. An alternative way of stating this is that the Darwinian evolutionary process happens by pure Blind* (Random) Chance operating over an enormously long time; this is also known as mechanistic or naturalistic process
- i* This at least is what has been traditionally said. However, there are Darwinists who now admit that pure chance on its own cannot possibly account for the complexity of life evolving over the

time scale available, and they conjecture that there is some other mechanism (but still a blind, naturalistic one) that is operating behind the scenes

- i The universe (also known as cosmos) and earth are billions of years old ('Old Earth', or 'Deep Time') – as evidenced, it is said, by cosmology and geology. Opponents, however, aver that there is a host of examples of geological features which are contrary to Darwinian evolution, such as, they say, 'polystrate fossils' (fossils which extend through several usually sedimentary layers and perpendicularly to them); but Darwinists offer frequent counter-arguments to the YEC claims
- i The age of the Earth is claimed as adequate to explain the origin of life and its subsequent Darwinian evolution
- i Darwinian Evolution is by a long, cumulative series of small step-wise advances in structure or functionality (Adaptations* in the Species*) each leading to an adaptation that improves chance of survival and to the passing on of the genetic improvement to offspring
- i Speciation* (emergence of new species) occurs when the cumulative effect of Darwinian adaptations creates new species, on account of the improved ability of the adapted form to survive, the ensuing population thereof ultimately either overwhelming and replacing, or just partially replacing, that of the original form
- i The overall effect of long-term speciation is that all Carbon-based* Life on earth, including the most advanced form, *homo sapiens*, has 'evolved' from (originally) chemicals; thus Neo-Darwinism has been called 'chemicals to life' or 'molecules to men' evolution, though the usual term is 'Common Descent' (or 'Universal Common Ancestry'). Darwin in *Origin of Species* didn't himself, in fact, claim origin of life from chemicals; rather he claimed all life to have evolved from 'a few forms or one'
- i Nonetheless, speciation hasn't been experimentally observed or demonstrated; it remains speculative. Darwinists at present cannot demonstrate speciation ever having happened. At best it's a (necessarily subjective) argument by Abduction*, whereby it is deemed by those who so deem it to be a likely, or the only possible, explanation in the light of the little that *can* be observed
- i An essential facet of Darwinism is that Random Mutation happens at the level of the individual of a species – it's not a collaborative programme involving multiple individuals or, indeed, the whole species; if an individual mutates, then the improved survival rate of its future generations is what drives Darwinian evolution; in other words, it's mutation happening at sexual reproduction time that causes Darwinian evolution (it's a bit more complicated in asexual reproduction, but it's still mutating genes that causes variation)
- i But it's to be emphasised that the role of the individual is in its capacity to pass on genetic improvement to its *offspring*; it's most definitely *not* about the individual's own capacity to improve its own survival prospects from what it inherited itself; this is why the term 'Survival of the Fittest' might mislead – it's not that the fittest of the *current* generation survives; rather, when one individual's *offspring*, rather than another individual's, are better fitted for survival on account of a beneficial mutation having happened within the first individual at reproduction time, and/or when the first individual's chances of producing offspring are better on account of it being 'fitter', then those offspring have a better chance of survival because they have inherited their traits from their 'fitter' parent(s)
- i The Fossil Record is reckoned to confirm Darwinism, on account of the (alleged) appearance of (some) fossils being intermediate forms between others. Once again, though, this is not an experimentally observed conclusion, of course – there's been no experimental confirmation

that one now-fossilised species evolved into another and then into a third, and so on. Again, therefore, it's speculative; it's reasoning by Abduction rather than by Induction*. All that can be properly claimed is that it *looks* like one now-fossilised species might have been the evolutionary ancestor of another

- i Darwinism claims the alleged 'Missing Links' in the fossil record are not missing at all, or not worryingly so
- i Likewise, a succession of new archaeo-biological 'discoveries' continuously and increasingly 'proves' Darwinism, it is claimed
- i The Darwinian scheme is usually, though not universally, held to be Uniformitarian* (the cosmos develops by unchanging laws throughout history and universally across the cosmos)
- i Naturalism*/Materialism*, and thus Atheism*, rules the view. The undirected, blind chance manner in which Darwinian evolution happens entails the absence of any external being or directing, supervising or controlling agency, divine or otherwise
- i AD offers no account of the existence in humans of altruism, compassion and other decidedly non-Darwinian virtues
- i Often responds to the Anthropic* Principle by the speculative 'Multiverse'* Conjecture; the Anthropic Principle states that the Earth (and indeed the whole Universe), and the laws of nature, are uniquely and supremely fitted for Biocentricity, particularly on Earth, and with *homo sapiens* specially (and, according to many of its advocates, designedly) at the pinnacle of the biological kingdom on Earth (see glossary)
- i Rejects Intelligent Design* or External Direction*/Supervision/Agency of any sort
- i Rejects the relevance of the Biblical Record* and other Creation Myths*
- i Rejects all Theism, Supernaturalism and Creationism (but often uses the term "creation" in a loose sense – see glossary)
- i The Material Matter and Energy of the Cosmos is all there is (but we note that according to cosmologists, most of the universe is missing!)
- i Consequently AD claims to be entirely a scientific* programme. Opponents, however, argue that it's a worldview searching for a justifying theory
- i *Homo Sapiens* is an (the most) advanced species evolutionarily speaking, but there is no other essential (ontological*) difference in biological terms between it and other species
- i The minority Deistic Darwinism (e.g. possibly, but not definitely, Darwin himself) is a slight exception within the otherwise totally non-supernaturalist AD view
- i Usually disdainful of YEC-ism, and dismissive of the scientific claims of YEC; thereby vulnerable to the charge of employing less than completely scientific arguments against their opponents
- i Likewise of ID, and usually claims ID is YEC-ism in thin disguise
- i Vulnerable to the charge of being speculative, given the vast gaps in the Darwinist understanding of how certain evolutionary steps might have taken place (not least the origin of life itself) by an accumulation of very small consecutive adaptations; vulnerable to this charge also on account of ensuing imaginative suggestions for some of those mechanisms advanced by Darwinists without any shadow of proof
- i Darwinists very frequently assert boldly that "Darwinism is True", sometimes in staccato terms such as (verbatim or implied) "true, True, TRUE" or "fact, Fact, FACT" (often to the

consternation of their opponents); but shouting loudly and derisively is the last refuge of desperation; by this statement Darwinists proclaim their absolute certainty about the truth of the theory, even though there are many large gaps in their understanding of the processes and detailed mechanisms by which certain life forms have actually evolved, as mentioned just above

- i Whether or not the theory is true, it is certainly a *complete* and coherent theory, by which we mean that the theory itself (Random Mutation + Natural Selection + Common Descent) doesn't lack any component – the edifice, if it's true, perfectly explains the development of all life from the very first, most basic life; what isn't complete is the understanding of the precise mechanistic history of how it happened in various cases; for the record, but see those sections, YEC is a complete theory (whether it's true or not it certainly offers, on their understanding of creation by God, a complete and coherent explanation of God's created order); but ID is *not* a complete theory (or final paradigm) – it doesn't claim to be, though; see later
- i Further, modern Darwinists concede that the actual origin of life itself remains completely without explanation; Darwinism has no aetiology, not even the beginnings of a suggestion for one, for the origin of life from chemicals; they insist, though, that as with the Darwinian theory of evolution, the genesis of the very first, most basic form of life “must have happened somehow” by the same completely blind chance
- i Large proportions of the DNA of organisms appear to have no practical use, as observed by scientists, it is said – the genetic information contained in it appears not to have been utilised; Darwinists tend to call this 'junk DNA'; for technical reasons beyond the scope of this non-technical paper, it's essential to the Darwinist cause that the 'junk-ness' of this junk DNA is real; but the 'junk-ness' of it has been seriously challenged recently (by the observation that most if not all DNA is being continuously read by the cell machinery, and much is probably, it is suggested, involved in control mechanisms), and if the challenge were substantiated this would be a source of embarrassment to Darwinism
- i The junk-ness of 'junk DNA' is one of many so-called 'icons of evolution' which have been seriously and comprehensively challenged by those unconvinced by Darwinism. Other examples include the Peppered Moth, long accepted by Darwinists as being a classic example of Darwinian evolution – but now shown to be naïve at best and fraudulent at worst, with the classic photographs having been staged; the classic pictorial portrayal of the supposed evolution, in stages, of man from ape – now suggested, and acknowledged even by some evolutionists, to be Darwinian dogma masquerading as science; Darwin's Finches, traditionally held to be examples of Darwinian evolution, but now recognised to be examples of Oscillating* Evolution; Archaeopteryx, traditionally seen as a vital missing link between land animals and birds, but now shown, it is alleged, to be nothing of the sort; and many others. This paper will not examine these anti-Darwinian claims, but certainly does acknowledge their seriousness and persuasiveness
- i Likewise, it has been claimed from within the Darwinian community that selective dog breeding supplies a clear example of the speed with which Darwinian evolution can happen; but the counterclaim has been persuasively made that selective dog breeding is a prime example of *Directed* Evolution (and entailing the survival of the *unfittest*), and not the necessarily *undirected* Darwinian evolution (which avers the survival of the *fittest*)
- i Opponents charge AD with being prejudiced against Theism, this atheistic stance being (logically and temporally) prior to the actual scientific programme; this makes AD vulnerable to the charge of being pseudo-science; i.e., vulnerable to the charge that there's a second, perhaps even prior, agenda operating – a stand-alone naturalistic/anti-religion agenda

i AD-ists are bemused by, but often accepting of the fact of, the Theism of TD-ists

AD – Persuasiveness Summary

Note: ✖, ✖✖ are degrees of unpersuasiveness

✓, ✓✓ are degrees of persuasiveness

✖ Persuasiveness that Darwinism accounts for all life forms arising from chemicals	✖✖
✖ Persuasiveness that Darwinism accounts for any speciation	✖✖
✖ Persuasiveness that Common Descent is true	✖
✖ Persuasiveness that ID is Creationism in thin disguise	✖✖
✖ Persuasiveness that <i>either</i> the fossil record is not really scarce (or not seriously scarce), <i>or</i> the scarcity of the fossil record is no problem to Darwinism	✖✖
✖ Persuasiveness that Darwinists have cogently accounted for the Anthropic Principle	✖✖
✖ Persuasiveness that the Anthropic Principle can be explained by the Multiverse Conjecture	✖✖
✓ Persuasiveness that Natural Selection and Random Mutation does happen (in fact frequently, but with beneficial mutation very rare, and operating only within species)	✓✓
✓ Persuasiveness that Darwinism entails Atheistic (or Deistic) Naturalism	✓✓

AD – My comments

- There are some aspects of AD which I admire, not least the doggedness and enthusiasm of its adherents which parallels that of the YEC-ists; the AD-ists' zeal (though desperation also) is not in doubt. One appreciates the straightforwardness of AD-ists – one usually knows exactly where one is with them; their dogmatic Atheism/Naturalism is often out in the open
- Nonetheless, this often exceeds what is desirable in its enthusiasm, and often leads some AD-ists to contempt for religious views in general and YEC views in particular, and I consider this scorn to be inappropriate, especially when directed against people
- I appreciate the force of some of the scientific observations and arguments used by AD-ists in support of Undirected 'Blind-Chance' Darwinism, though I don't find the conclusions of those arguments ultimately persuasive
- Nor does a significant body of scholarly opinion within the well-reputed scientific community, as mentioned above. The failure of Darwinism generally to take these scientists seriously, and to lump them together with other so-called science-deniers or history-deniers is lamentable
- I can see how the atheistic stance of this position fits neatly with the Darwinist scientific conclusions – but it's open to question whether those conclusions (which other scientists think do *not* follow from the scientific observations) determine, or are determined by, or just go along with, the atheistic stance. To put it another way, does committed Naturalism drive Darwinism, or does committed Darwinism drive Naturalism?

- The question of whether at rock-bottom the foundational dogma for committed AD-ists is their Atheism/Naturalism or their Darwinism is moot – I suspect that for many AD-ists their Atheism/Naturalism is actually the more foundational
- The persuasion of this author is that the naturalistic dogma and the Darwinian dogma are intricately tied up with one another; or to put it another way, AD is essentially a worldview that decides *a priori* against any external agency in evolution/development in nature, a consequence of which is that Darwinism is the only acceptable explanation for life. Thus naturalism is the prevailing and controlling paradigm
- This explains why when science throws up yet another difficulty for (and thus embarrassment to) Darwinism, the explanations get more and more contortedly complex
- It also explains, but certainly doesn't justify, the mockery and derision that emanates polemically from many Darwinists towards their opposition
- But I recognise that the starting point for some is their biological profession or interest, or that of other scientific disciplines, and that such scientists are Darwinist first, and that their Darwinism is not controlled by their Atheism
- The completely and utterly unprovable Multiverse Conjecture is one example of the way in which Darwinist explanations are becoming increasingly complex, and often convolutedly so. Darwinists don't seem to mind transgressing the principle of Ockham's Razor*; if AD-ists are willing to conjecture multiple universes, why aren't they willing to conjecture an external agency?
- That some committed Darwinists are now conceding that blind chance alone driving mutation and selection cannot after all explain the vast number of macro-evolutionary steps that have happened over the billions of years of the earth's existence is intriguing. Even more intriguing is the prospect of an explanation being offered of whatever mechanism is operating to give blind chance a helping hand, without this amounting to an external agency
- The question of agency is, of course, the single biggest issue in this whole debate. AD insists that there is no external agency – another way of saying that Darwinian evolution is undirected
- Suppose (hypothetically) a pre-decided atheistic stance were coupled with a scientific conviction that either Common Descent is not true, and/or that Natural Selection operating on Random Mutation produces minimal evolution only; this would leave a very difficult problem for such a scientist atheist; it's no surprise, therefore, that such a large proportion of atheists are also Darwinists
- I am entirely persuaded (as also by ID-ists) of the frequency of genetic mutations, and of the consequent reality of small evolutionary steps (micro-evolution), occurring when the mutation is beneficial, caused by Natural Selection operating on Random Mutation, but find the AD insistence on macro-evolution too, and that all life has evolved on this basis by Common Descent, entirely unpersuasive at the scientific level (quite independent of, and leaving aside for the moment, the influence of any religious viewpoint or conviction – though I am myself a committed Christian)
- It is vexing to say the least that Darwinists consistently fail to differentiate between micro-evolution within species (which is almost universally recognised), on the one hand, and macro-evolution creating new species, on the other hand; it's the latter that's disputed by non-Darwinists. But this failure enables Darwinists to pronounce, losing their integrity in the process, "Evolution is true", and no-one can disagree; but this is deception. Producing multiple examples of micro-evolution does nothing (absolutely nothing) to prove macro-evolution

- Clearly then, as a Christian myself, I am decidedly at variance with the Atheism of AD; and having studied hard the scientific arguments, I am equally unpersuaded by AD's 'Chemicals-to-Animals' Darwinism; in other words, my rejection of AD is not as a result only of my Christian faith – the scientific arguments would have the same effect even on their own; I reject the Atheism on account of my persuasion of the claims of Christ, and I reject the Darwinism on account of my un-persuasion of Darwinian scientific arguments
- But having said that, I am also convinced that the near universal acceptance and popularity of AD, and the tenacity with which the viewpoint is held, owe much to the power and control of the paradigm as a paradigm; and because of the magnitude and tenacity of the AD position, the paradigm is very much more controlling than that of the much smaller camp, YEC – paradigm inertia is a force to be reckoned with wherever it's to be found, and paradigm shift can be very costly, especially in terms of credibility for a shifting individual – and all the more so when there's a cost in terms of employment prospects, respect or reputation amongst peers (and perhaps friends and family). To stick your neck out and hold your own against a huge tide of opinion takes enormous courage; such is the pull of 'paradigm pride'
- AD-ists, especially militant ones, are so deeply entrenched in the position, and so much has been personally invested in it by so many, that the extractability quotient, as with the YEC-ists (see later), must surely be near to zero; I don't mean this pejoratively or dismissively, but rather and simply that zealous enthusiasts are so deeply in, that it must be hard to get out (but this, of course, applies to any entrenched opinion subject to attack or disdain, and there are many examples in the history of science)
- I am thus not surprised at the durability of AD; likewise, I'm not surprised by the seeming inability of AD-ists adequately to respond fairly to cogent scientific reasoning from their opponents
- AD is often Aggressive and Militant, and often Dismissive and Scornful of all other views, in a manner not warranted by its claims to be entirely a scientific approach
- Given that the scientific arguments against Darwinism by ID on the one hand, and by YEC on the other, are on the whole so different in nature (though with some overlap), it's surprising that the vehemence and nature of the rejection of both these camps by AD is so similar, and that frequent AD derision of ID equals their frequent scorn for YEC; The frequent AD accusation that ID is YEC in thin disguise is quite unjustified, in view of the vast distinction between ID and YEC
- That AD very frequently conflates YEC with ID is, of course, on account of the perceived religious commitment of ID, which is anathema to AD. Given that AD does conflate the two, perhaps it's not so surprising that their antipathy to ID equals their antipathy to YEC. The confusion isn't helped by the fact that some Christians conflate ID and YEC too, again, quite unjustifiably
- The possibility is very real, IMHO, that a determined and aggressive Naturalistic worldview is what *drives* the dogmatism of the Darwinism of many of its adherents (I'll decline to justify this with examples, as I wish the paper to remain free of *ad hominem* arguments and even free of named individuals); if I am justified in thus surmising, then perhaps it's not surprising that many AD-ists are so militant, so defensive, so rejecting not only of YEC but also of even moderate ID arguments; the paradigm rules
- The onslaught against Darwinism by ID-ists and others within the scientific realm has been gathering momentum over the past couple of decades; as will be noted below, ID-ists claim that every scientific advance points increasingly against Darwinism; I detect a growing defensiveness and desperation amongst at least some Darwinists

- It's intriguing that many Darwinists loathe the term 'Darwinism' and bid to retain 'Evolution', even though many scientists nowadays disavow Darwinism, but do accept some other model of evolution; why, one asks, do the Darwinists want to keep the term 'Evolution' to themselves? Could it be, I wonder, that in their heart of hearts they know that Darwinism will fall soon, leaving large quantities of egg on very many faces? Could it be that today's Darwinists would like to be able to say sometime in the future, "But we're Evolutionists! We always were! We're the ones who have kept the candle burning for over a century!"?
- In summary, I find the AD position profoundly unpersuasive (scientifically), increasingly desperate and inordinately defensive

Chapter 2. Theistic Darwinism (TD)

TD – Explanation

- i* In the TD view Darwinism is, in scientific terms, identical to that espoused by AD; Random Mutation + Natural Selection + Common Descent = Darwinism, as with AD
- i* Being theist, TD-ists, of course, tend to believe in miracles, unlike AD-ists, for whom miracles are a contradiction of the naturalist assumptions of AD. Nonetheless, the previous bullet point holds. TD-ists will agree with AD-ists that the laws of nature preclude miracles, but explain miracles as the temporary suspension of natural laws by the divine law-maker
- i* Equivalently, TD-ists speak sometimes of the 'normal workings of God' (scientific law – i.e., God works by ordinary scientific processes, including the process of Creation by Darwinian evolution) and the 'abnormal workings of God' (suspension of those laws, e.g., miracles)
- i* Darwinism is directed (and controlled/supervised – and the biblical term 'sustained' is also employed) by Theistic Intelligence, but such that its evolutionary processes are indistinguishable from AD Blind Chance to the human observer; i.e., there is no difference phenomenologically* in how Theistically guided evolution looks and how (as proposed by AD) Blind Chance atheistic evolution looks – if it were otherwise then the Theistic supervision could be detected by science; TD-ists deny the latter could be so – their acceptance of Theistic supervision is a religious belief, and *not* a scientific observation; but this belief does fill in the gap in the explanatory power of blind chance referred to above
- i* Where TD-ists do believe in miracles, these, and thus the Theistic intervention entailed, should theoretically be detectable by science, and whether or not there is scientific evidence for miracles having taken place is much discussed in certain religious circles, but remains moot
- i* However, we must ask, "Does TD need the hypothesis of theism given that an assumption of non-agency does just as well?" Seeking to overlay Darwinism with theism transgresses the principle of Ockham's Razor
- i* Herein lies what for this writer is one particular fatal flaw in the TD paradigm. TD-ists purport to take Darwinism, strip it of its naturalistic assumptions, entailing as those do a totally and unequivocally undirected evolutionary process, and replace them by the insistence of Theism as the initiating and (sole and comprehensive) directing agency. They then think the result is still Darwinism. But this is a category error of epic proportions. Darwinism *requires* total non-direction of the evolutionary process; it can thus just about sit with Deism, but certainly not with Theism. That's not to say that a Theistic view of evolution isn't itself a valid paradigm, but is to say that such a view of Theistic evolution isn't Darwinian, and can't be

- i Thus TD is very vulnerable to the charge that Darwinism married with Theism can no longer still be Darwinism, on account of the alleged inherent Naturalism in Darwinism
- i Further, it would be wrong for such a Theistic view of evolution to be termed 'Theistic Evolution'. This is because there are Christians and other theists aplenty who do believe in some sort of evolution, and who thus should be counted as theistic evolutionists, but who disavow the view that all evolution is characterised by the trio of Common Descent, Random Variation and Natural Selection. The reality is that there's a wealth of differing evolutionary and non-evolutionary views espoused (all with conviction) within the Christian community, and brief terms such as (but not only) 'Theistic Evolution' are unlikely adequately to explain the one camp without disenfranchising another
- i Nonetheless, the TD camp being evaluated here is the predominant evolutionary camp within the Christian community, and they do espouse a belief in theistically directed Darwinian evolution, which is why I do consent to call it TD here (this certainly being preferable to Theistic Evolution). But TD is most certainly not Darwinism, whatever might be claimed
- i TD thus shares the characteristics of AD above (including Old Earth), except where those impinge on and deny the Theism of TD
- i Vulnerable to the charge of being essentially Deistic (miracles apart), because whatever divine activity may have been involved at the beginning, there has been none scientifically detectable since
- i Embraces the Anthropic Principle without any difficulty (self-evident on the basis of the Theism of TD)
- i Creation is Theistically initiated, but no suggested mechanism for this other than acceptance of Big Bang (usually)
- i Usually lacks a doctrine of Special Creation (see glossary – thus Biblical Creation is by the Normal Working of God). Although TD-ists do usually believe in miracles, there is a reluctance by TD to admit of miracles in Genesis 1-3, because it's a necessary feature of TD that these texts are figurative, or very largely so, and are not to be taken as describing actual historical events in their stated detail
- i Usually lacks a coherent explanation for the arrival of the 'soul' of man, or the sense in which 'Man' was in the actual event 'made in the Image of God', with 'Life' 'breathed into' him by God. I mean here that TD-ists contend that the development of life on earth is by Darwinian evolution, and there is no room in this paradigm for such 'spiritual' events happening. A TD-ist will certainly believe in these doctrines, and believe that they are spoken of in Genesis 1ff. But Genesis 1ff is a figurative passage speaking of spiritual things; so TD (especially as opposed to YEC) does lack a stated aetiology for how man acquired these spiritual traits
- i Likewise usually lacks coherent account of or aetiology for the effect on the evolutionary process of The Fall, Miracles, God's Sabbath Day of Rest, 'Nature, red in tooth and claw'*
- i Regarding the last of these, TD usually accepts pre-Fall death and suffering in the animal kingdom, including that in hominids before God's breathing life in them, not seeing this as a theological problem (or often avoiding the issue). This is of course a necessary corollary to an old earth evolving Darwinianly – long before there were hominids who, by God's special act or process, whatever it was on the TD view, turned into 'man, made in the image of God', and thus long before the biblical Fall, there must have been billions of years of animal suffering. It will be remarked below that YEC launches a determined, cogent and highly incisive attack on

Darwinism on this account. TD's response to this is often feeble to say the least, or frequently avoids discussion of the issue altogether, often not even acknowledging the issue.

- i To be fair, some TD-ists do offer a defence, sometimes by arguing for a distinction between a world created 'good' (as per Genesis 1) and a 'perfect' world, which, it is said on this view, God didn't create – it was for man to make it perfect – God created it 'good' but less than perfect; or it is sometimes simply remarked that it's not for us to pass judgement on what God thinks of animal pain. YEC responds by arguing that the term 'good' could never be used of a world characterised by the poet's expression, 'Nature red in tooth and claw', especially considering the significant texts that speak of wolf laying down with the lamb, and other such, which speak of an ultimate eschatological perfect world with no animal suffering
- i TD often embraces the Liberal/Sceptic-Theological 'Framework* Hypothesis'
- i Often militant against, and often dismissive and sometimes scornful of, ID and YEC, just as is AD
- i The TD campaign against YEC (and *vice versa*) is frequently no less militant on account of the common profession of Christian faith of the two sides
- i TD-ists don't, of course, dismiss the relevance of the biblical record in the way AD-ists do, but adopt a Figurative and/or Poetic or other literary hermeneutic in their understanding of Genesis 1 *et al* – Genesis 1 offers no scientific or other significant material factual data; the Bible is not a cosmic textbook
- i Vulnerable to the charge that of the two basic convictions – Darwinism and Theism – it's their Darwinist take on science that trumps their Theism in the theory of origins

TD – Persuasiveness Summary

- ✗ Persuasiveness that one can marry Theism with Darwinism leaving it materially unaltered xx
- ✗ Persuasiveness that TDs have seriously grappled with pre-Fall death xx
- ✗ Persuasiveness that TDs have seriously grappled with 'Nature, red in tooth and claw' xx
- ✗ Persuasiveness that TDs have seriously grappled with Miracles and The Fall xx
- ✗ Persuasiveness that TDs have accounted for the discontinuities inevitably inherent in The Fall and in Miracles xx
- ✗ Persuasiveness that TDs can write off their brothers and sisters who are YEC-ists so easily and so dismissively xx
- ✗ Persuasiveness that TDs have seriously grappled with ID arguments xx
- ✗ Persuasiveness that TDs, particularly evangelical Christian ones, can safely and easily embrace the theologically liberal-sceptic Framework Hypothesis so readily and without demur xx
- ✗ Persuasiveness that TDs have proved themselves in general to be good Bible handlers (but I fully concede there are admirable exceptions) xx

- ✘ Persuasiveness that TDs can so easily ascribe apparently miraculous events in Genesis 1 to their 'Normal Working of God' category, on the one hand, but (other) apparently miraculous events to their 'Abnormal Working of God' category, on the other hand, without considerably more cogent discussion and reasoning; likewise that the difference in these categories is warranted, given that everything God does in the Bible He does by His Word

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TD – My comments

- I find this viewpoint more difficult than Atheistic Darwinism; so persuaded am I along with many other Christians that Atheism and Naturalism are inherent in Darwinism (as are many or most Atheistic Darwinists!), that I find the concept of a Darwinism that's Theistically directed quite impossible conceptually, though I do realise that TD-ists insist otherwise. To my mind Darwinism fits far better with Deism than with Theism
- My misgivings are partly due to a very frequent lack of cogent and otherwise adequate response from TD-ists when asked probing questions about their stance, or about the viewpoint of their ID-ist or YEC-ist opponents (the frequent ducking of issues is lamentable); this is in much of my own direct experience; I acknowledge this surely can't be universal, but it's certainly frequent
- In particular, I think I have yet to hear an adequate response from TD-ists to the questions of Death and 'Nature, red in tooth and claw' (pain and suffering) in a 'Good' creation before the Fall (the strongest of the YEC arguments, IMHO). The massiveness of this problem for any Christian believer with a high regard for the notion of God's revelation in scripture can scarcely be exaggerated
- Likewise, as a Christian, I am concerned by the blithe rejection of the doctrine of any Special Creation after whatever initiatory divine event sparked off the evolutionary process – Special Creation has been displaced by the Normal Working of God (by supervising the divinely instituted laws of nature)
- Likewise by TD-ist insistence that there is no *observable* difference between AD (Blind Chance) and TD (Theistic Supervision that looks and measures like Blind Chance); in fact, TD-ists struggle to answer the charge against them by all other parties that Theistic Supervision looking and measuring just like Blind Chance actually *is* Blind Chance, and nothing but – it is no Theistic Supervision at all; on this charge Theistic Supervision is simply and only Blind Chance operating on the predefined laws of nature that God created (i.e., the divine 'fitness of the cosmos') – in this sense it is virtually indistinguishable from Deism
- Likewise by the TD-ist failure to give any account for the inevitable *material* discontinuities inherent in divine interventions such as Miracles or the Curse after The Fall; if TD-ists respond with their distinction between the 'Normal' and the 'Abnormal' Workings of God, there remains the issue of the inevitable perturbations in the Normal Workings of God occasioned by the very happenings of the Abnormal Workings of God; it's not that I am necessarily convinced that TD-ists *cannot* give an answer, but that in my experience they just don't; I wish I could have a reasoned discussion with a TD-ist on this and other matters (such discussions are elusive, though perhaps not impossible)
- Likewise by the TD-ist failure to grapple with the simple fact that a substantial number of competent scientist Christians have severe problems with Darwinism, some in the ID camp, some in the YEC; it's not that I insist (I don't) that these other scientist Christians would

inevitably win the argument, but rather that I would love to witness them being engaged with, not dismissed by, the TD-ists

- TD is often aggressive towards and scornful of other Christian views, as well as being militant and dismissive, just as is AD, and I find this very disappointing when I experience it (experience of much, sadly); I find this even less warranted than when AD behaves badly, given TD's claims to Theism (and consequent high moral stance)
- In summary, I find the TD position profoundly unpersuasive and inordinately defensive, and feel it can lack grace

Chapter 3. Young Earth Creationism (YEC)

YEC – Explanation

- i* There are a number of bedrock components of the YEC dogma – first, Theistic Special Creation; then second, its antipathy to Common Descent (on account of YEC commitment to Special Creation of living things according to their 'kind' – a biblical term); then third, its antipathy to Naturalism (on account of its commitment to Theism); then fourthly a 'literal'* biblical hermeneutic (which YEC believes is a vital doctrine to uphold Theistic Special Creation), applying especially to the early chapters of Genesis; and finally its antipathy to an old earth (on account of its 'literal' biblical hermeneutic).
- i* YEC's commitment to their 'literal' biblical hermeneutic applied to the early chapters of Genesis results in a belief in a 6 day creation, an actual pair of original humans, Adam and Eve, reliable human ages and genealogies with no gaps, and an actual world-wide catastrophic flood, etc. YEC is unabashed either by ridicule or by counter-arguments levelled against it
- i* YEC-ists are 'Special Creation'-ists, but they aren't the only such; there are old-earth special creationists as well
- i* The origin of the universe and of all living things is on account of God's Special Creation only, and thus inexplicable by Darwinism
- i* It's Darwinism's Naturalism, and thus equally Darwinism's antipathy to Theistic Special Creation, which is most offensive to YEC; Darwinism is *essentially* Naturalistic, and thus Atheistic, according to YEC, and is therefore to be opposed at all costs
- i* The Earth/Universe is only a few thousand years old (usually 6,000, sometimes a few thousand more); this figure is calculated from biblical data on the conviction of the 'literal' truth, as YEC-ists see it, of the biblical genealogies, which are claimed to be complete as per the YEC 'literal' hermeneutic
- i* Observes anomalies in the geological record (such as the polystrate fossils mentioned above) and deficiencies and anomalies in the fossil record, which YEC alleges as a scientific argument for a Young Earth, and thus against Darwinism. Again, YEC is undaunted by counter-arguments
- i* All apparent geological (and other scientific) problems with the YEC view (as alleged by Old Earthers) are actually explicable, says YEC, in geological (and other scientific) terms (YEC-ists are advocates of geological Catastrophism*, particularly in reference to the biblical flood); offers alternative cosmologies where it's deemed necessary (e.g., in respect of problems to do with the velocity of light)
- i* Doesn't necessarily deny minimal adaptation within species by Natural Selection operating on Random Mutation, but denies speciation thereby; i.e., accepts micro-evolution only, if at all

- i Concurs with many of the arguments (especially molecular-biological arguments) of ID whilst rejecting ID on account of ID's acceptance of Old Earth and Common Descent, and on account of ID's declining formally to identify the designer as God
- i Likewise YEC-ists oppose TD-ists with every bit as much fervour as they oppose AD-ists; sometimes more so, on account of what they regard as TD's compromising the truth of scripture and of various biblical doctrines, as they see it
- i YEC-ists seem to oppose ID-ists with almost as much fervour as Darwinists; this is on account of ID Old-Earth-ism. Again, this is because YEC thinks ID as well as TD has compromised on an authentic view of the absolute truth of scripture
- i Proclaims the biblical record as 'literally' true – the Days of Genesis 1 are 'literal' 24 hour 'solar' days (where a solar day is just as we know it today), and all creation happens as chronologically indicated in the text, and exactly as described in the text, each element being instantaneous by the spoken Word of God. YEC is again unmoved by scorn and scientific counter-arguments against this 'literal' view
- i Proclaims genre of Genesis 1 to be plain historical narrative without qualification, and not poetry, and usually not in any sense figurative
- i Rejects the validity (and sometimes the real Christian-ness) of other Christians (especially Theistic Darwinists) attempting to disallow a 'literal' reading (as YEC-ists understand 'literal')
- i Claims Darwinism directly and obviously contradicts a plain reading of Genesis 1; the latter, being the Word of God, must be definitive, and thus must be defended rigorously
- i For all these reasons YEC is very determined and enthusiastic
- i Dismissive of Christian Old-Earth proponents who embrace the Framework Hypothesis, given that this latter is of a 19th Century theologically Liberal-Sceptic provenance (or, depending on point of view, a 5th Century Augustinian neo-Platonist provenance)
- i The YEC hermeneutic for Genesis 1 (and many other texts key to the YEC argument) is the only possible valid one in the YEC view
- i Vulnerable to the charge that the YEC hermeneutic isn't actually foundational, but, rather, that the anti-Naturalism stance is foundational. Those non-YEC-ists, including this author, who are sympathetic to the latter stance frequently argue that the YEC biblical hermeneutic is not in fact necessary (at all) in order to oppose Naturalism or Darwinism
- i Vulnerable to the charge of 'Science Denial'
- i All Creation is (God's) Special Creation, so YEC has no essential problem with the Image of God in man, Man's Soul, The Fall, Miracles, God's Sabbath Day of Rest, the Breathing of Life into *Homo Sapiens*, or 'Nature, red in tooth and claw'
- i This latter, the existence of pain and death in the pre-Fall world, is far and away YEC's trump card, and YEC's opponents, those, that is, who share the YEC anti-Naturalistic worldview, have far more difficulty countering this feature of the YEC case than any other
- i YEC is a *complete* theory; whether or not it's true, it certainly offers a complete, self-consistent and coherent explanation of Creation
- i But its opponents, especially, but not only, AD-ists, disagree most emphatically with all of its arguments, and often pour scorn upon it
- i Often militant and strident itself

YEC – Persuasiveness Summary

✗ Persuasiveness that the earth is young by biblical argument	✗✗
✗ Persuasiveness that the earth is young by geological argument	✗✗
✗ Persuasiveness that the ‘days’ of Genesis 1 are 24 hour solar days	✗✗
✗ Persuasiveness that the genre of Genesis 1 is plain historical narrative and consequently delivers scientific facts, and that this genre thus decides the ‘literal’-ness of the text	✗✗
✗ Persuasiveness that the genealogies of the Bible are a problem for an old earth	✗
✗ Persuasiveness that alternative cosmologies can satisfactorily defeat various scientific problems for YEC-ism	✗✗
✗ Persuasiveness that the YEC hermeneutic isn’t special pleading	✗✗
✗ Persuasiveness that other Christians are seriously deceived	✗✗
✗ Persuasiveness that other Christians may perhaps not be Christian, or in some sense only marginally so	✗✗
✗ Persuasiveness that any hermeneutic other than the YEC one is selling out the Bible	✗✗
✓ Persuasiveness that ‘Nature, red in tooth and claw’ is a problem for Theistic Darwinists	✓✓
✓ Persuasiveness that ‘Discontinuities’ such as Original Creation, The Fall and Miracles are a problem for Theistic Darwinists	✓✓
✓ Persuasiveness that some geological anomalies are a problem for all Darwinists	✓✓
✓ Persuasiveness that Atheism is inherent in Darwinism	✓✓

YEC – My comments

- YEC-ists take the Christian Faith and the Bible seriously; particularly the inerrancy and infallibility thereof, as they perceive such
- YEC-ists take the divine origin of the universe and of all life seriously, and uphold the biblical distinctiveness of humanity as made in God’s image
- YEC-ists see (perceptively, IMHO) and take seriously the dangers inherent in Darwinism, and in any Old Earth theory
- Consequently, YEC has a trump card of epic proportions which I believe to be (currently) unanswerable. I haven’t hitherto despite much wide reading seen any attempt to answer it, especially any recent attempt, that gets anywhere near to being satisfactory or persuasive. I refer, of course, to the matter of pre-Fall suffering, death, pain and destruction entailed by any Old Earth theory, which I have already alluded to in previous sections. YEC has a natural and commendable antipathy to the very notion that God could call ‘very good’ a divinely created world before the advent of sin
- Sometimes, though, YEC does overstate their case by over-use of emotive reasoning

- YEC argues that their conclusion on this matter is not only a reasonable one on a fair reading of Genesis 1, but that it's the consistent witness of scripture that all violence within the animal kingdom is a result of the curse, and cannot predate it, and that a cessation of that violence is consequently and naturally one of the goals of God's redemptive purposes – the latter point rendering it highly improbable that God could or would create a 'good' world featuring, pre-Fall, the very distasteful elements that cannot be part of the final heavenly kingdom
- Consequently, I wish to be scrupulously fair to YEC and concede that I, personally, find this pre-Fall suffering argument quite unanswerable. This is not to say that I am persuaded by YEC, for I am not, and it may be worthwhile my rehearsing here the two prime reasons I cannot go with YEC. They are first, that I am entirely unpersuaded of the hermeneutic methods of YEC (see more on this below); and secondly, that I am fully persuaded of the strength of the scientific arguments against a Young Earth
- The consequent limbo-land of final uncertainty this leaves one in does not trouble this author. One of the most troubling features of the entire debate is the paucity of contenders within it who are willing freely to say, "We don't know" when they don't know. I for one am perfectly willing to answer the question, "How can we reach a finally reconciled, self-consistent, no-problem answer to the question of origins from both a scientific and biblical-hermeneutical basis?", with the reply, "I don't know". See later for more on this
- It's a moot point as to which of the bedrock components of YEC is/are really foundational; IMHO, Theistic Special Creation and anti-Naturalism (and consequently anti-Common-Descent) are more foundational than Young-Earth-ism in itself and more than a 'literal' biblical hermeneutic as such. Their biblical hermeneutic works in their scheme to protect their worldview in much the same way as AD-ists appeal to pseudo-science to protect theirs. It's the thesis of this paper that the YEC-ists no more need to appeal to their hermeneutic (I share their worldview, but not their hermeneutic) than AD-ists need appeal to their pseudo-science
- YEC-ists are utterly committed and indefatigable in their strident opposition to Darwinism, and in their consequent trenchant defence of YEC-ism in general and the 'literal' nature of Genesis 1 in particular
- YEC-ists are praiseworthy in their desire to defend the integrity of the Bible. Their commitment to what they deem to be a 'literal' view of Genesis 1 is part of their own integrity in this defence. I have no wish to challenge the integrity (or sincerity) of this their position; nor do I wish to do other than join them in defending the integrity of the Bible as God's Word revealed. Below, however, I shall remark that YEC doesn't need its 'literal' view of Genesis 1ff in order to challenge Naturalism
- The doggedness, tenacity and devotion with which YEC-ists oppose all Darwinists, both Theist and Atheist, and also oppose the vast number of keen Bible-believing old-earth Christians who don't go along with the YEC biblical hermeneutic, is very impressive, but also in my view excessive
- YEC-ists are wonderfully imaginative in their geological and cosmological defences of their position, and hold to them with considerable determination
- One consequence of this is the wealth of inane arguments about Adam's belly-button and immune system (or lack thereof), and the precise date and even time of the commencement of creation, and many others of the same sort. These are immense distractions
- But I do not believe these arguments hold water at all, despite my sympathy for the anti-Darwinism fundamental YEC stance; I certainly do see the force myself of at least some of the

claims of YEC-ists of the many geological anomalies that don't fit with the Darwinist position, but not often with the YEC suggested aetiologies of these observations

- Likewise I do not believe the YEC 'Literal' Hermeneutic for Genesis 1, 2-3, the Genealogies, *et al*, is valid; IMHO, this hermeneutic is not necessary in order to oppose AD's Naturalism and TD's rejection of Special Creation (i.e., TD's acceptance of Uniformitarianism). I concede that YEC *thinks* it has to adopt the 'literal' hermeneutic as a foil to Naturalism, and that YEC *thinks* that every alternative hermeneutic buys into the naturalistic world view and thus compromises on the integrity of scripture – but that doesn't mean YEC is correct, and I disagree strongly
- Regarding my previous remark, I don't regard the YEC 'literal' hermeneutic as completely impossible (although I consider it highly unlikely). But I do consider it not *necessary*, or not *proven* necessary. The difference between *possible* and *necessary* is a subtle but important distinction. For the defence of the YEC position to be valid the 'literal' hermeneutic has to be proved *necessary*
- To prove their hermeneutic *necessary* they have to demonstrate that every other hermeneutic is not only *unlikely*, but is actually *impossible* under fair-minded, commonly accepted Bible-handling principles. This they cannot do, in my view. It's not on totally to dismiss observations of structural features and figurative components, and discussions of genre types, in the early chapters of Genesis
- Granted, biblically minded opponents of YEC might also be guilty of *eisegesis* as I argue below, and granted, these opponents need on their own terms to dismiss a 'literal' hermeneutic; but it ought to be possible for a fair, honest and unheated discussion to be had on the handling of Genesis 1ff without the need for the controlling presence of preconceived notions. But in my experience such a discussion is very rare
- For the record, an appeal to literary genre by any party in any discussion of Genesis 1 is fraught with danger, because this text is so unique in its style. I agree it's most definitely not poetry, but it will not do to claim, as YEC does, that "Genesis 1 is narrative history, therefore it *must* be read literally and only literally". For one thing, although indeed it is certainly narrative, it is very unlike other narrative history, which makes any dogmatic claims for how to read it very dodgy. For another thing, Genesis 1 is highly structured; many other narrative passages in the Bible are also highly structured, and accordingly have figurative interpretations as at least part of their commonly accepted exegesis. Figurative readings of Genesis 1 must not be automatically and peremptorily dismissed, but *any* interpretation from whatever camp must be treated with suspicion where it derives from preconceived conclusions (i.e., from *eisegesis*)
- I can't help but think that the YEC insistence on their hermeneutic, and their dismissal of the hermeneutic of other keen Christians, is driven mostly by their deep-seated opposition to Darwinism
- Putting this another way, I believe YEC to be guilty of what theological buffs call *eisegesis*, that is, imposing preconceived views on to the text. YEC brings its strident opposition to Naturalism to the text of scripture, and the result is the YEC 'literal' hermeneutic. To be fair, I believe TD is guilty of *eisegesis* as well. TD brings its preconceived old earth commitment to scripture, and the result is the TD figurative hermeneutic.
- This requires a further comment, because I want to be scrupulously fair to YEC. YEC-ists are utterly committed in their evangelical view of the divine inspiration of scripture and its revelation of God himself and of the divine creation and the divine purpose to redeem the fallen world (Fantastic! I too!). YEC-ists are thus utterly committed in their opposition to Naturalism (Brilliant! I too!). YEC-ists are utterly committed to the 'good'-ness, indeed 'very

good'-ness, of the original creation (the teaching of Genesis 1), of the reality of the fall (Genesis 3), and of the reality of God's subsequent curse on fallen man and of the resultant fallen creation and death (Terrific! I too!). YEC-ists see the danger inherent in an Old Earth view, that it's very difficult, as they see it, and I agree and so see the danger too, to reconcile an old earth with the doctrines of a good but then fallen creation with death coming at the fall. YEC-ists then conclude that an 'Old Earth' must be wrong, and that therefore the only way to read Genesis 1 is through a Young Earth lens; the result is a commitment to a 6-solar-day literal reading of Genesis 1. 'Old Earth must be wrong' implies 'literal view of Genesis 1'; this is eisegesis

- But I can't agree with the YEC insistence that seeing a danger in an old earth view, and finding it difficult to accommodate a real fall and a real curse and the arrival of death (as Genesis 3 sees it) with an Old Earth, necessitates a rejection of Old Earth. This to me is the Achilles heel of YEC. Jumping, as YEC reasons, from "We see a danger in Old Earth; we can't see how to reconcile an Old Earth with some key biblical doctrines" to "the only legitimate way to read Genesis 1 is 'literally'" is to assign divine revelatory authority to a piece of human reasoning, and this is not appropriate or valid. Although there is indeed the danger, and the reconciliation difficulty, as described just above, we cannot legitimately insist that the danger is necessarily fatal, or that 'difficult' means 'impossible'
- Further, for the YEC argument to hold, it's not sufficient just to show that a 'literal' reading of Genesis 1 is a *possible* reading (I concede in all fairness that it is indeed a *possible* reading). Rather, it must be shown that it's a *necessary* reading of Genesis 1 – i.e., that the 'literal' reading is the *only* valid way to interpret the text. A piece of human reasoning from without the Bible is certainly not adequate to insist on one hermeneutic over another. In my opinion YEC has certainly not won the argument over other valid hermeneutics
- I have difficulty accepting the YEC dismissal of or scepticism towards the genuineness of the Christian commitment of Christians with an alternative hermeneutic, including those evangelical Christians who adopt the liberal-sceptic Framework Hypothesis, and including those TD Christians who avow some other figurative hermeneutic; YEC-ists often persist in this dismissal and scepticism even when those Christians (usually Old-Earth ID-ists) are clearly not driven by an acceptance of Darwinism
- When strict YEC-ists (earth 6,000 years old) blithely say they won't break fellowship with those who differ a little (e.g. 10,000 year old earth advocates, who break with the strict YEC-ists on the matter of the genealogies), and who seem to imply thereby that they might want to break fellowship with other non-YEC Christians, then, again, I find it very difficult
- YEC-ists have not properly come to terms with the latterly emergent ID camp, IMHO, and don't seem yet to have worked out how to respond to ID; this is strange, given that ID-ists don't usually volunteer a suggested evolutionary/adaptational mechanism for macro-evolution, unlike Darwinists who certainly have a comprehensive (often very speculative) set of suggested mechanisms
- The way YEC-ists answer ID-ists doesn't seem to be different from their answer to Darwinists, or at least the differences between ID and Darwinism aren't often seriously addressed
- YEC-ists don't seem to take note of the widespread pre-Darwin Old-Earth-ism
- YEC-ists often *seem* to treat their campaign as the most important Christian issue there is; they share this trait in common with Christian Zionists, pre-Millennialists, post-Millennialists, spiritual warfare aficionados and the like

- Sadly I have sometimes known the trenchancy of the YEC opposition to Darwinism spill over into unwarranted aggression, dismissiveness or disdain towards all their opponents, and I find this considerably disappointing, and I find this all the more unwarranted given its claims to Theism and consequent high moral stance
- I nonetheless hugely admire YEC-ists and their doggedness
- But I personally profoundly disagree with YEC at both the hermeneutical and the scientific levels, excepting only the trump card of the 'Nature, red in tooth and claw' problem, as I have called it, which I find unanswerable; I believe YEC paradigm is profoundly mistaken, with the exception just mentioned the only mitigating factor. Although the problems faced in this latter direction by any old earth view are massive to the extent of being insurmountable, the improbability of the YEC hermeneutic, and the geological and cosmological arguments for an old earth being of such great strength (and for a young earth so weak in sum total), that on clear balance the YEC case is, for me, not adequate
- Such is the power of the YEC paradigm, that it is fairly much non-escape-from-able, I would think, sadly
- I am not surprised at the durability of YEC, nor of the YEC-ists' seeming inability to respond cogently and fairly to the reasoning of their opponents in both the scientific and the hermeneutical arenas, in particular their seeming inability to listen to and respond to the hermeneutical pleas of fellow Christians who adamantly reject both Theistic and Atheistic Darwinism
- In summary, I find the YEC position finally unpersuasive and inordinately defensive, and feel it often lacks grace; it's as inappropriately strident, confrontational and disdainful as its opponents at times; it also defends its position unnecessarily when the opponents' argumentation is self-destructive

Chapter 4. Intelligent Design (ID)

ID – Explanation

- i* The bedrock of Intelligent Design is its scientific conviction that Darwinism cannot account for the evolution of all earth's life forms from the earth's chemical materials; or even of the Darwinian leap to a new complex biological mechanism in a significant number of stated cases. Full-blown Darwinism, sometimes called 'Molecules to Man' evolution, is rejected by ID-ists; they reject it on scientific grounds; ID insists it is a scientific programme, not a religious programme
- i* ID advances the principle of Irreducible Complexity (see glossary). Darwinists, though, are currently claiming irreducible complexity does arise by naturalistic processes (as, of course, they must)
- i* Accepts the principles of Random Mutation and Natural Selection operating at minor levels, and thus accepts much micro-evolution
- i* Rejects Random Mutation and Natural Selection as explaining any evolution creating radical new species; but accepts smaller-scale adaptations in response to changing environment
- i* Argues that Mutation results in Loss of useful Genetic Information, and this observation underscores the rejection of Darwinian Evolution by Random Mutation and Natural Selection

- i Mutations generally offer either no improvement, or only partial improvement and partial disadvantage – not improvement only without disadvantage
- i ID claims that the exceedingly rapid pace with which science has been advancing over the past few decades has at every point enhanced the ID position to the cost of Darwinism; the main points of ID are strengthened at every turn
- i The only valid explanation of the above observations is ‘Design’, or Teleological Purpose, by an Intelligent Design agent (not necessarily to be equated with a Theistic God, but often is, and not necessarily even with a personal entity)
- i The processes by which the Designer initiates/directs/supervises the teleological process are not stated or argued for – whether the Designer employs some scientific mechanism beyond anything currently envisaged by Darwinism (which, we recall, is *not* adequate to explain all life according to ID); or whether the Designer employs intermittent Special Creation in some sense; or whether there is some other explanation, isn’t usually stated, though some ID-ists seem to prefer the second of those options; many ID-ists are perfectly content to be Agnostic in this; many aren’t Christian, though those who aren’t are often religious in some other sense, sometimes in a mystical or Eastern sense; the humbler adherents typically state, “We Don’t Know” when they don’t know
- i A variation of the Design argument (though its adherents don’t necessarily identify with ID as such) is the suggestion that the ‘inevitability’ and ‘direction’ of evolution is all pre-programmed in some sense into the laws of nature, etc., and into the general fitness of the Cosmos for Life – so that “it had to happen”; this view isn’t Theistic in an orthodox sense, but even though it retains an evolutionist stance it’s decidedly non-Darwinian, as Darwinian Evolution is most assuredly *non*-directed; many other variations in the basic ID thesis have been advanced and held
- i ID is therefore not a ‘complete’ theory; by this we mean that there are gaps in the theory itself – it lacks a theory as to how new species have evolved or otherwise come about if not by Darwinian macro-evolution; it is therefore different from the other views which *are* complete theories or almost so; the gaps in Darwinism are gaps in the understanding of the *processes* by which adaptations happened, not gaps in the *theory* behind those processes
- i The incompleteness of ID as a theory, though, doesn’t disadvantage it *as a theory* of that which it does aver, namely design. ID doesn’t aspire to be a complete theory. It is content deliberately to be satisfied to make one major point only, namely that Intelligent Design is scientifically evident in nature, owing primarily to the notion of Irreducible Complexity, and to leave all other gaps in the theory knowingly unfilled
- i Vulnerable to the charge of being neo-‘God of the Gaps’ – on the grounds that ID accounts for some of the evolutionary development of the earth in the usual terms of Natural Selection operating on Random Mutation, but that speciation is in some unknown way the result of direct intervention by the Designer
- i Usually, the earth is billions of years old in ID, though a number of Young Earth Creationists would want to align themselves with a lot of the ID arguments such as that of Irreducible Complexity
- i Intelligent Design proponents do not necessarily deny ‘Evolution’ altogether, only ‘Darwinian Evolution’ as an aetiology for the existence of all life; to ID-ists Evolution is *Directed* Evolution, whereas Darwinian Evolution is *Undirected*

- i TD-ists also aver Directed Evolution, as stated above. But there is a big difference between ID and TD in this matter. TD insists that the ‘direction’ is totally unseen and unmeasurable by scientific observation (miracles apart), so that it’s indistinguishable from AD at the level of observation (all this is argued in a previous section). But ID makes no such insistence – rather, ID is indifferent as to by what mechanism the Intelligent Designer operates, whether observably and measurably or not, insisting only that the Intelligent Design is real and actual
- i Sometimes, though not necessarily, ID accepts Common Descent, but not by Natural Selection operating on Random Mutational differences; i.e., in ID all current species may be derived from a single original ancestor (or a few), but the development of one new species from a pre-existing one is Designer intervention (or Designer pre-programmed), and not Darwinian
- i Embraces the Anthropic Principle; the bio-centricity of the universe and the primacy of *homo sapiens* alone, independently of the other observations here, points to teleological design and purpose
- i ID proponents are often Christian, but by no means always – agnostic proponents, and those of other religious persuasion, are many; those who are Christian by no means always mimic the Christian ‘keenness’ or ‘committedness’ of Young Earth Creationists or some Theistic Darwinists
- i The Biblical Record is not usually seen as relevant to the scientific debate, and ID-ists aren’t usually concerned to defend or justify their position from the standpoint of biblical hermeneutics
- i Often charged by Darwinists as being a religious programme, not the scientific programme that ID insists it is; often identified as ‘YEC in disguise’ and as ‘not science’
- i Let me for the purposes of this paper define Moderate ID as the basic ID programme, consisting of serious scientific doubt as to the ability of Darwinism to explain everything, belief in irreducible complexity, a conviction of the appearance of Design and Teleological purpose, a conviction that loss of genetic information is a serious problem for AD, and a willingness to remain uncertain about evolutionary or creative mechanisms; that said, it must be observed that in the US (and extending beyond) ID is frequently a much bigger edifice than just Moderate ID as defined here; it is ‘governed’ or at least driven by the so-called Discovery Institute (with high-profile Fellows), and has multiple agendas well beyond ID, such as political and educational agendas
- i Moderate ID-ists are frequently marked by humility

ID – Persuasiveness Summary

- ✗ Persuasiveness that ‘Intelligent Design’ is the best name for this viewpoint ✗
- ✗ Persuasiveness that ID survives unscathed the criticism that it is a neo-‘God of the Gaps’ viewpoint ✗✗
- ✗ Persuasiveness that anything beyond Moderate ID, especially the programme of the Discovery Institute, is an appropriate recommendation of ID ✗✗
- ✓ Persuasiveness that Irreducible Complexity is a justified category and is a severe problem for Darwinists ✓✓
- ✓ Persuasiveness that probabilities/time scale are a problem for Mutation/Selection ✓✓

- ✓ Persuasiveness that the Anthropic Principle is undefeatable by Darwinism ✓✓
- ✓ Persuasiveness that ID survives the misgivings of YEC-ism ✓✓
- ✓ Persuasiveness that ID survives the “You’re a religious programme, not a scientific programme” attack of Darwinism ✓✓
- ✓ Persuasiveness that ID survives the ‘YEC in disguise’ attack, and other attacks, of Darwinism ✓✓
- ✓ Persuasiveness that ‘Old Earth’ ID survives the “You’ve sold out on the Bible just like the Darwinists” attack of YEC ✓✓

ID – My comments

- I am enormously impressed by the cogency and persuasiveness of the scientific arguments of Moderate ID-ists
- Likewise I am impressed by the boldness with which they stand firm, and stand distinct from the other polar opposite (and often hostile) camps
- Likewise by the consequent humility of the Moderate ID-ists – I haven’t myself yet witnessed or read any scorn, dismissiveness or aggression from within their camp
- Likewise I am impressed by the willingness of Moderate ID-ists to say, “We don’t know”, when they don’t know; they routinely decline to speculate, except occasionally when they honestly declare themselves to be thus doing, and I haven’t witnessed posturing from this camp; Moderate ID-ists understand that it’s alright to say, “We don’t know”
- Thus the willingness of Moderate ID-ists to say with cogent reasoning, “YEC is not the answer” to the big questions about Origins, and to say with cogent reasoning, “Darwinian Evolution isn’t the answer either”, and to be content with the many ensuing, “We don’t know”s, is very winsome, and commends this position
- It’s quite helpful that many ID adherents and proponents have no or little religious affiliation or commitment; agnostics, nominal Christians and other-religionists are many in this camp; such correspondingly argue entirely from scientific positions, often with no religious axe to grind anyway; they are willing to admit to an appearance of Design in nature without any necessary pre-existing belief in a Designer – this perhaps strengthens the case! Likewise it weakens the AD contention that ID is a religious programme
- I think that the charge of being a neo-‘God of the Gaps’ position is to some extent justified; ID-ists IMHO are too liable to declare one thing to be definitely designed and achieved by divine intervention (e.g. speciation and all irreducibly complex mechanisms), but another the result of randomness (e.g., micro-evolution) – this is similar to my misgiving regarding the ‘Normal’ and ‘Abnormal’ Working of God categories of the TD-ists
- I think the label ‘Intelligent Design’ is an unfortunate mistake (not least in that TD-ists – and YEC-ists! – ought in principle to be able to claim this term as describing their position). Given that ID is a scientific programme (and I am convinced that this is a fair claim by ID), it ought to have a scientific label, I believe. Why? Because the ID label is too much of a red rag to a bull to the Darwinists, and exacerbates (unfairly, but it does nonetheless) the AD charge that ID is a religious programme despite ID’s denial. Old Earth Directed non-Darwinism, or some such, would have been far preferable, IMHO, were this not too much of a mouthful

- Correspondingly, I feel some ID-ists venture too far in their ruminations about the Designer; many do go no further, I'm glad to say, than to declare that the tenets of ID *point* to a Designer (in a similar way to we Christians declaring with the Bible that the wonder of Creation should *point* to the majesty of God, so that we are without excuse if we disregard Him), and that speculation as to the nature and identity of the Designer, and of the manner by which the Designer has 'intervened', is beyond the ID remit. But I wish this caution were universal amongst the adherents – although I am a convinced Christian myself, I am content to leave the truth of the Christian faith to hang on divine revelation generally and the claims of Jesus Christ specifically, and the theory of ID to hang on scientific argument – and then to be totally unsurprised that they marry together beautifully!
- An even bigger misgiving in my estimation is the US edifice, the Discovery Institute, with its multiple agendas as I see it so to have; its devotees and their machinations do not, I fear, commend themselves to me; in the States across the pond, ID and DI are virtually synonymous – to align with ID is to align with the DI, and this I personally cannot do, and I'm consequently not an ID-ist
- But these cautions aside, I remain impressed with the basic scientific tenets of the moderate ID-ists as I have described them, with all the "We Don't Know"s that this entails in the Origins debate, acknowledging quite contentedly that it's an incomplete theory
- However, ID, at least in its Christian Theist component, has an Achilles heel. Like TD, it consummately fails to take note of, or attempt (at least) to deal with, the issue of pre-Fall suffering and death. This is the YEC trump card as I have argued above. YEC has insurmountable problems of its own, as I have argued, but 'Nature, red in tooth and claw'-denial (if I may dub it thus) is a terrible failing for a Christian position. There is no Christian faith without the doctrine of sin and the Fall and the Curse, and of God's redemption plan. Failure even to consider how pre-Fall 'goodness' of creation and an Old Earth can be satisfactorily reconciled is not a happy circumstance, and nor is the constant ducking of the issue by Christian commentators who seem resolute on the biblical legitimising of an Old Earth view, nor their resolving of the issue by strained means

Chapter 5. Is there an Alternative?

- ▶ Definitely, there is, but inevitably it's replete with 'Don't know's; all the four principal positions have failed to persuade, at least in their form as respective final coherent paradigms. Each one has features that I find quite untenable
- ▶ The four positions fail to persuade as follows, summarising the earlier sections:
 - ↪ AD fails to persuade on account of its internal inconsistency and failures at the scientific level, and this holds independently of its atheistic, naturalistic stance which also fails to commend itself to a person of Christian faith. It also fails to persuade on account of its scornful and dismissive attitudes and lack of humility
 - ↪ TD fails to persuade for the same scientific failures as AD, and on account of the incompatibility between its Darwinist stance and its Theistic stance. It is also capable of scorn and hubris. It also fails to persuade on account of its 'Nature, red in tooth and claw'-denial
 - ↪ YEC fails to persuade because of its hermeneutical failures (and contortions) and its scientific naivety, despite there being some strength in some of its scientific arguments. Its trump card is its 'Nature, red in tooth and claw' realism

- ⇨ ID fails to persuade on account of its 'Nature, red in tooth and claw'-denial; on account of its failure adequately to distinguish between its scientific agenda and religious or quasi-religious issues; and on account of its excessive devotion to other unseemly agendas in large and significant sections of its advocate base
- ▶ I freely admit, though, that certain features of each have commended themselves to me, in some cases considerably, and I have acknowledged those in the notes above
- ▶ Where I have found fault in the arguments this has been either at the scientific level, unprejudiced, I hope and trust, by my own Christian faith; or at the biblical hermeneutical level, unprejudiced, I trust, by my own scientific persuasions; or at the methodology and behaviour levels
- ▶ The following, very briefly to keep it a containable goblet, is what I'm comprehensively persuaded of:

Science conclusions

1. Micro-evolution within species by Natural Selection/Random Mutation does happen
2. Macro-evolution such as to explain the emergence of new species doesn't happen, at least generally, and probably at all
3. Darwinism doesn't and can't explain the emergence of life from non-life. The route from chemicals to the original common ancestor(s) is entirely without aetiology
4. Darwinism doesn't and can't explain the development of all life from a common ancestor, or from multiple original forms
5. Darwinism arose from within, and is sustained now within, a naturalistic milieu which has far more to do with the dogma than is usually credited
6. There are many matters to do with the scientific mechanisms by which the cosmos developed (in particular how life developed) which are as yet total unknowns, contrary to the stated beliefs of Darwinists
7. The overwhelming scientific evidence points to the world being very old
8. Science, unaided by any religious perspective, does point to apparent design in the living world
9. Science yields no information about such a hypothecated designer/creator, save only to confirm from self-evident scientific observation that the Designer is one of order, not of confusion, which is exactly what the Bible says too

Christian Faith conclusions

- a) Christianity is true, especially (and, mentioning only points relevant for this paper) in its respect for the Bible as the trustworthy Word of God, and in its understanding that the overall message of the Bible is that of Redemption from sin (through Christ), which arose in a previously untainted created world at the Fall. This stance may be perplexing to non-Christians, but it does explain why TD, ID and YEC (and I) are all so keen to do justice, as we see it, to the text of the early chapters of Genesis. I won't rehearse other key features of Christian commitment here
- b) On ordinary, commonly accepted hermeneutical principles the Bible yields no cosmic information at all beyond what was readily observable at the time within the then framework of the world population's understanding

- c) Rather, the Bible is God's account of his dealings with mankind, particularly in redemption
 - d) Young Earth Creationists are, I believe, mistaken in their hermeneutical principles, and it's certainly not necessary to resort to those mistaken principles, and thus to the necessity of a young earth, in order adequately to oppose the mistaken scientific and anti-religious beliefs of Darwinists
 - e) In particular, the Bible proclaims God to be, by his word, creator and designer of the cosmos down to the tiniest detail, including its laws, and that not only the creation of the cosmos, but the sustaining of it throughout history, again in the tiniest detail, is due to the power of his word – all this is entailed by biblical Christian belief
 - f) Also, in particular, mankind, and God's relationship with him, is the essential purpose of the entire creation exercise in the biblical view; man was created by God to be in relationship with God, and is the pinnacle of creation
 - g) The world created by God was designed as one in which, following the fall of man, God would bring redemption by his grace through Jesus Christ
 - h) The Bible is insistent that the Fall was a real event in history, when mankind first sinned; that sin then and thereby entered the previously untainted world and tainted every aspect of it as God cursed the world he had made; the curse was a real historical event which changed the nature of the world and of man, who was thenceforth a sinner by nature
 - i) The 'very good'-ness of the world prior to the fall excludes the possibility of what I have termed 'Nature, red in tooth and claw'-denial. I.e., the 'very good'-ness of the pre-Fall world is incompatible with suffering and death in that era. This is the Achilles heel of TD and ID, and the trump card of YEC
- ▶ It comes as absolutely no surprise to me that the earlier, numbered, points above, detailing science conclusions of which I am persuaded, and the later, lettered, points, detailing Christian faith conclusions of which I am persuaded, match each other far better than is the case in any other faith position or non-faith position
 - ▶ But I fully concede that the matter of the pre-Fall 'very good'-ness of the world, and its incompatibility with billions of years of suffering and death in the animal kingdom, is an insurmountable problem of epic proportions, with little prospect of mitigation. YEC would, I don't doubt, love to persuade me out of my hermeneutical misgivings and claim me for their own, but I fear they have an uphill struggle. ID would love to claim me too, I guess, if only I could shut my eyes to 'Nature, red in tooth and claw'-denial, but I can't. TD, I would think, realises it has no prospects of convincing me of Darwinism. And my Christian faith is entirely secure against the atheism of AD
 - ▶ My position doesn't pretend to know what it doesn't know, and is perfectly willing to say, "I don't know", when I don't know. How shall I mitigate the 'Nature, red in tooth and claw' problem? I don't know. Here I am content to stand

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Glossary

Abduction

Abduction, Induction and Deduction are three methods within the realm of logical reasoning. Abduction is a relatively new concept, for the following reason. At one stage it was held that for a hypothesis to be regarded as a scientific hypothesis its truth or otherwise had to be establishable by repeated experiment. It also had to be 'falsifiable' – meaning that at the stage the hypothesis is formulated, and even before it is actually tested, there has to be an experimental procedure ahead that if followed would prove the hypothesis false if it is indeed false. Also, of course, the experimental procedure has to prove the hypothesis true if it is true, but this one latter requirement on its own is not sufficient – the falsifiability condition must be satisfied too. This for a long time proved entirely satisfactory. But then it became realised that there are some hypotheses for which no repeatable experimentation is even conceivable let alone practicable, such as any theory for the extinction of the dinosaurs, or for the so-called big bang. Scientists then proposed that in such cases, on weighing up all such evidence as there was for this or that possibility, the best fit of all the available possibilities would be accepted as the most likely. This logical process is called *abduction*, or *abductive reasoning*, or *inferring to the best conclusion*. Needless to say a significant degree of provisionality has to be assigned to the accepted conclusion. It's very bad science to be over-dogmatic about a conclusion reached through abduction, but in the case of the Origins debate there are many such claims and counterclaims. When abduction is employed it's common for different sets of scientists to reach different preferred conclusions, and the degree of provisionality has to be even greater, and acknowledged as such if the science is to be reckoned as good science.

•Induction

Induction, or the inductive method, is the classic logical method employed in scientific investigation. It's the very simple concept by which scientists conduct experiments, preferably, of course, repeated experiments under controlled conditions, and observe the results. These results then serve as empirical data which can be weighed and assessed. The result of that pondering process can be used to formulate a hypothesis as to the general principle or 'law' by which the results came about. For example, on realising that everything falls to the ground, and by then conducting a series of experiments to see what results seem to happen by way of an object's acceleration, etc., a theory of gravitation can be formulated, and this turns out to be the universally accepted inverse square law of gravitational attraction (until Einstein, that is!). The process by which a universal law is formulated from empirical, experimental data is known as *induction*, or *inductive reasoning*. There may still be a degree of provisionality assigned to such a law, but this grows less, and the law more certainly accepted, the more repeated experiments are done.

Note that the classic inductive scientific method does defer to and use deduction – that is to say, laws already accepted by the scientific community are of course used to aid the analysis of experimental results

(and, in the first place, in the design of experiments). The important thing is that already accepted laws of science are never allowed automatically to trump new scientific observation; if there should be a discrepancy between new observation and old law, such as Einstein postulated between Newtonian mechanics (Newton's three laws of motion) and the observation of objects moving at close to the speed of light, then the crucial question is, "Is the new observation faulty and the old law still valid, or is the old law faulty and the new observation valid in which case, what revised law(s) should be formulated and tested?"

Mathematicians please note: the mathematical process known as *Proof by Induction* is a misnomer, I'm afraid. It's not an inductive method in the sense that the term is used by scientists and other experimenters. Rather, it's one particular type of *deductive* logical (mathematical) method. Mathematicians never ever do proof by the classical inductive method as defined above, but only by deductive method. What mathematicians can and do do is to formulate hypotheses, conjectures and postulates by the inductive method – that is, they take note of apparent mathematical patterns, and then wonder if a general result might be true. Famous examples include the Goldbach Conjecture, the Reimann Hypothesis, and Fermat's Last Theorem (now proven). When postulated these may or may not have been true, and may or may not turn out one day to be provable. But only when actually proved *deductively* are they universally accepted as true by the mathematical community.

A final note to Bible-study practitioners: see note below about so-called Inductive Bible Study

- Deduction

Deduction is the classical logical method of mathematical reasoning and propositional logic. It involves no experiment at all (save only that investigating and observing mathematical patterns may precede the deductive process and help the mathematicians to see what possible results might be true; one might perhaps call this mathematical experiment, but it's not scientific experiment because it's all done in the head and on paper). Rather, deduction starts with a set of 'axioms' (or 'premises', or 'laws' or 'precepts'), and then makes logical deductions from them. Such a statement of logical deduction is then of this form: "Given that such and such a set of axioms are true, then this and that are true", or, a little less precisely, "On such and such an assumption, this and that follows". An example would be Pythagoras' Theorem, which would be formally stated, "Given the axioms of Euclidean Geometry, the square ... etc."

By its very nature deductive reasoning is *predictive*. On the assumption that certain laws are true, it predicts what will be observed in practice, so long as the resulting mathematics can be done to the required degree of accuracy. A classic example is the motion of two interacting bodies in space: if the starting positions and velocities of two massive objects are known, then the subsequent positions and velocities of those objects, operating on one another by the law of gravitation, can be exactly and accurately predicted for all subsequent times. By contrast, the same

cannot be predicted for three such bodies, or more; but only because the mathematics cannot be done.

In the realm of science, deduction can of course be used once the scientific community is universally convinced of the truth of certain fundamental laws of nature. An example would be of the form, “Given the truth of Newtonian mechanics, then an object in a vacuum falls with this acceleration ...”, or the like. But it must be stressed, first, that the laws can only be discovered and formulated in the first place by the classical scientific inductive method, and secondly, that if the laws turn out to be not true after all then the final conclusion mightn’t be true either, though the logical process is still valid. The preceding example is a case in point: Newton’s Laws of Motion do turn out not to be true after all for motion at velocities approaching the speed of light, at which point Einstein’s theory takes over. Here’s another example to stress the point: if I were to make this statement, “Given that all cows are bright green, then the next cow I see will be bright green” is a perfectly valid deductive logical argument. The final conclusion is untrue only because the original assumption was untrue – but the logic is faultless (if rather useless).

Having said, “rather useless”, I ought to add that mathematicians do most certainly have a use for this kind of reasoning: they sometimes assume a result is true, then follow a line of reasoning according to faultless propositional logic, and end up with an absurdity – a manifestly untrue statement. This proves that the original result is untrue, and the method is known as *reductio ad absurdum*, and is often very useful for proving statements untrue.

- Inductive Bible-Study

There is a Bible-study method called Inductive Bible Study. I include a note on it here for two reasons – one is that for Christians reading this there may be confusion over its meaning now that I’ve defined science’s Inductive Logical Method; the other is that there is an inherent warning pertinent to the subject of this paper.

The meaning of ‘inductive’ in the term Inductive Bible Study is not unrelated to the inductive logical method, but it’s not really the same because Bible-study isn’t the same process as science, and actually it means different things to different people. It is used by some to refer simply to group Bible study where there isn’t an appointed teacher who has studied the relevant passage in advance – the group studies the passage by pooling their immediate thoughts, untaught by another; whatever one thinks of this idea, there isn’t a ‘mediator’ who brings in ‘data’ or ‘information’ from outside of the group study, as it were. The group is on its own, and the only thing the group uses is the previous experience and knowledge of the Bible and of the Christian faith of the group members; it’s this that is brought to the study – nothing is ‘deduced’ from any external controlling ‘law’. Others use the term to mean Bible-study, whether personal or in a group, where one’s (or the group’s) *life* experiences are brought to the text of the Bible, and are deemed to be definitive in determining the meaning. This is rather different. It’s not a very good idea for those who believe the Bible is God’s Word, because of the danger of using one’s life experience to do

eisegesis rather than *exegesis* – see those terms in the glossary. This is very relevant to the question of Origins and the way professing Christians understand Genesis 1-3, etc. It's all too easy to bring to Genesis 1, etc., one's preconceived notions and prejudices. Again, not a good idea, but it happens hand over fist, sadly.

Still others, and perhaps the majority, use the term simply to mean Bible study in its classical form – namely, the careful process of first 'observation' of the passage in question (reading it thoroughly in context, being careful to observe what is there, and not to impose upon preconceived notions of what is there), and then secondly 'interpretation' of the text (applying standard, conventional, well-attested hermeneutical principles which are commonly acknowledged and used by the Bible-honouring community of Bible teachers), and then thirdly, 'application' of the text to the mind, heart and life of the Christian believer and the Christian church. This is how Christians have sought to read the Bible in personal and group study, and in all 1-many Bible teaching, for a very long time, though it hasn't always been known by this label of course. The label is late 20th century (esp. 1970s), and because of its confusion with others' understanding of what the term means (these understandings of the term 'inductive' are all very different from one another), perhaps it should, advisedly, be discontinued completely, not least on account of the recent introduction of the concept of abduction within the scientific community.

Adaptation

In one sense, this is a general *state*, or an individual instance, of structure and/or function of a living organism which suits it to its habitat, climate, food and water source, defence or other happenstance. For example lions are adapted to carnivorous life on African savannahs by virtue of their speed, canine teeth, hormonal control of fuel supply in the face of occasional meals, etc. Biologists do frequently use the word in this sense as an existing *state*, but note that it's a slight misnomer, as 'adaptation' does carry the idea of a *change* from one state to another; in this latter sense the word 'adaptation' is used to denote an *event* whereby an organism changes its structure or function by a degree such that it becomes better adapted to changing habitat, climate or food supply; for example, change in beak shape and size in Galapagos finches is thought to be related to changes in climate and food supply; in both senses the structure/function is controlled by a library of genetic information – the genome which codes for the chemical entity responsible; mutations of genes cause the adaptation, and, in microevolution, favourable adaptations are selected naturally.

Aetiology

or Etiology
or Aitiology

A term which means an explanation of the cause of a thing, or an explanation of why a thing should happen or be as it is; from Greek 'cause' and 'the study of'. It's used much in the medical world, where frequently it is used for the cause itself, rather than for the explanation – a subtle distinction, perhaps. For example, a medic might say, "Smoking is an aetiology for lung cancer", meaning, "Smoking is a cause of lung cancer."

Allelic (or Genetic)

In any organism, the DNA molecule is an extremely long sequence of

Drift

genes, each of which is a sequence of three nucleotides (of which there are four types), the basic building blocks of DNA. Genes are codes for protein production. Different genes determine the various characteristics of the organism. The same gene can take different forms, known as alleles, from a Greek word meaning *one another*. Different alleles of the same gene can give rise to variations in the trait(s) the gene is responsible for in the organism. Allelic (or Genetic) Drift refers to a purely chance process by which, in a small population, the proportions in which the differing alleles occur in the population can vary over time, in the same way as, for instance, when one tosses a coin ten times one might get 6 heads and 4 tails on one occasion, or 3 heads and 7 tails on another. Statisticians call this a stochastic process. It doesn't apply to large populations for statistical reasons. All this is rather technical, and this is but a brief summary. The implication of genetic drift for this paper is that it provides another method by which in small populations variations can occur over time. But it doesn't affect any observation or conclusion in this paper.

Atheism

See Theism

Anthropic Principle

This is a very slippery term, because it has many definitions and sub-definitions, with lack of precise agreement across the scientific community; essentially the Anthropic Principle avers that *in some sense* 'it looks' as though the cosmos (in general) and the world (in particular) are uniquely and ideally fitted for advanced (conscious, intelligent) carbon-based life; the driving force behind the Anthropic principle is the observation that the various fixed physical constants and physical laws governing the workings of the universe are such that life is possible – changing any single one even a slight amount, it is observed, renders the resulting hypothetical universe quite unable to develop life at all, let alone advanced life; put differently, and in more of a mouthful, but it amounts to the same thing, it suggests that there is no surprise at all that we are here in the cosmos observing the 'surprising' reality that all the physical constants, laws and accidents of the cosmos are all uniquely fitted for intelligent life able to observe this reality, because if it were otherwise we wouldn't after all be here to observe it; it is increasingly suggested that it's not only the constants and laws that 'enable' life, but all the 'accidents' of how the universe in general and our solar system in particular have developed that make life possible on earth – even to details such as (to give just one example) the existence of earth's moon of exactly the right size and orbit, and even the manner in which it was formed, contribute to the enormous 'surprise' that our universe can contain a planet upon which advanced life could and did form; But it's more complicated than this, I'm afraid; the exact formulation of the Anthropic Principle varies from exponent to exponent; further, there's the Weak Anthropic Principle and the Strong Anthropic Principle, though one person's Weak is another's Strong; then there is the 'Final', the 'Participatory' and other Anthropic Principles, and it's all rather uncertain who means what by what; the principle has been ridiculed as 'tosh' by some, notably once being described as the Completely

Ridiculous Anthropic Principle by a mathematician who was into rather base acronyms; what is certain is that the Anthropic Principle has provoked a lot of debate, resulting in confident claims either *for* naturalistic cosmology and evolution, sometimes postulating multiple or even an infinite number of universes, or different regions of the cosmos obeying differing sets of natural laws (the 'Multiverse' conjecture), or *against* naturalism and *for* Intelligent Design; take your pick, gentle reader

Blind Chance	By Blind Chance events we mean unintended, accidental happenings which are statistically random and have no purpose or design
Carbon-based Life	This is life as we know it; there is no other type known to man, anywhere in the universe; it has been ably demonstrated that the element carbon is uniquely fitted for life, but an account of this is beyond the scope of this paper; hypothesised alternatives such as silicon and boron do not stack up chemically, and are highly speculative – they belong to science fiction only; the same goes for the idea of ammonia replacing water (the Roswell incident was famed for such a suggestion)
Catastrophism	In geology this is the view that the earth develops through a series of occasional sudden and violent leaps forward, such as by the effect of meteorite collisions, volcanic eruptions, floods and glaciations; in particular, and consequently, Catastrophism suggests that life on earth has developed similarly, and that this explains sudden extinctions, repopulations and saltations; within the arena of Darwinism, Catastrophism isn't really a relevant term, but it has a parallel in the terms Saltationism* and Punctuated* Equilibrium – see these below
Christian Faith	See Faith, also Religion
Common Descent or Universal Ancestry	Darwinism holds that any two species that have ever lived share(d) a common ancestor; this ancestor subsequently evolved Darwinianly in (at least) two different directions, and these led eventually, by Darwinian Evolution, to the two later species in mind; the closer the two species are to each other (e.g., lion and tiger) the less far back their common ancestor; the further apart they are (e.g., gladioli and aardvark), evolutionarily speaking, the further back their common ancestor; in this way it is insisted that every living thing can trace its evolutionary ancestry back to the world of microorganisms, which in turn trace their ancestry back to chemicals; AD and TD hold to Common Descent without reservation, and ID tends to as well, though not universally; it's anathema, though, to YEC
Cosmos	Everything that exists, matter and energy, that is observable to Man
Creationism and Evolutionism	See separate notes just below; here though I observe the disappointing reality that the huge and vexed debate (or tussle, or outright war) between Darwinism and Young Earth Creationism (which as a debate pre-dates the emergence of ID as a coherent alternative player) has often been described as the 'Creation-Evolution' debate; this is exceedingly unfortunate, as many Evolutionists are Creationists technically speaking (i.e., Theistic Darwinists), and many Creationists are Evolutionists,

technically speaking (i.e., many ID-ists); IMHO we seriously need to stick to the terms I use in this paper, namely Darwinism and Young Earth Creationism, even if the latter is a bit of a mouthful

•Creationism This, without qualification, is simply the view that there is a creator, usually a divine creator, of either the Theist (usually) or Deist (less usually) variety; Creationists are usually either 'Young Earth' or 'Old Earth' Creationists; TD-ists and ID-ists are both usually Old Earth Creationists; but see note on YEC below about the ambiguity of the term

•Young Earth Creationism This is sometimes just called Creationism, both by Darwinists and by YEC-ists; and both parties are very persistent in this despite the objection being offered cogently that this usage is very ambiguous and confusing, as all Christians are Creationists *de facto*, even TD-ists and ID-ists; because of this confusion, the term 'Creationism' is not used neat, without clear qualification, in this paper

•Evolutionism This, without qualification, is belief in a unified theory Evolution *of some sort* and should be reserved as an umbrella term for any type of evolutionary scheme centring around the notion of 'Evolution', whereby one form changes into another altered form in response to the environment it's in; Darwinists (AD and TD) hold to Darwinian Evolution, whereas ID-ists usually hold to a different, though much less specified, scheme of non-Darwinian Evolution, though as mentioned above in this paper suggested mechanisms are not (yet) forthcoming from the ID camp; i.e., both Darwinists and much of the ID camp hold to versions of Evolutionism; the entire ID camp, though, shouldn't be termed 'Evolutionist', because many ID-ists wouldn't want (yet) to acknowledge Common Descent or Evolution as a principal player in their scheme; although YEC-ists believe in micro-evolution, the YEC camp shouldn't be called 'Evolutionist', because micro-evolution is only a tiny incidental detail of YEC, not its main component, and in any case to be called 'Evolutionist' a view really needs to be a unified body of belief centring around an Evolutionism of some sort; having said that, sadly the term 'Evolution' has been consistently used as a synonym for Darwinism, and this is very unfortunate, particularly these days when many ID-ists profess to be non-Darwinian Evolutionists; I shall never refer to Darwinism as Evolutionism, and I recommend this policy

Creation Myths Many ancient and modern religions and cultures across the entire world have inherited traditions about the origins of the world – how it came about; collectively these are called Creation Myths by scholars; for example the famous Epic of Gilgamesh is an Ancient Near Eastern creation myth; scholars outside the Christian realm tend to think of the biblical account of creation as a Creation Myth; such scholars also tend to think that the biblical account derives from other pre-existing creation myths, especially the Epic of Gilgamesh; Christians don't think that the biblical account is a 'Creation Myth', of course

Darwinism The full blown Darwinian Evolutionary Theory with its three-fold commitment to Common Descent, and Natural Selection operating on Random Mutation; see also Neo-Darwinism

•Neo-Darwinism

Darwinism as it is today has moved beyond Darwin's own theories, simply because science and knowledge have moved forward so much; there were many things that Darwin didn't know, and some things he didn't quite explain correctly on account of the paucity of his knowledge; thus Darwinism today is frequently called neo-Darwinism; specialists will emphatically distinguish between the two; however, the differences do not affect the essential arguments of this paper, and can be ignored here; in particular, the essential basis of neo-Darwinism remains that of Darwinism – Common Descent + Natural Selection + Random Mutation. Darwin and most of his peers knew nothing of genetics even though the famous Gregor Mendel had already performed his experiments on peas and other vegetables in his monastery garden.

Deductive Reasoning
or Deduction

See Abduction

Deism

See Theism

Evolutionism

See under Creationism

Faith

A term which means a variety of different things to different people; in this paper, and in all this writer's writings, Faith has the following precise meaning; Faith is a person's sure conviction of the truth of a thing based upon what he/she considers is rock-solid evidence of an appropriate sort, but where absolute, unchallengeable proof may perhaps not be forthcoming – coupled with a concordant commitment to that thing; thus faith is certainly not 'wishful thinking' nor 'what one does when the evidence runs out'; it's a 'leap', yes, because of the commitment to the idea involved, but it's not a 'leap in the dark'; it's a leap in the light of what's considered to be excellent evidence; Christian Faith is sure conviction – see below; and all the four main Origins views discussed here are faith positions

•Christian Faith

The conviction that the claims of Jesus Christ stack up and are not found wanting – that Jesus Christ was and is the promised Divine Saviour of historic Christian belief – coupled with concordant commitment to the person of Christ; that's it in a nutshell. This is how Christians understand it, and is not to be confused with 'religion', in that Christian faith is based on a real person and his claims, his teaching, his deeds and his life – and his death and resurrection as historical events – with a sound evidence base; Christians hold that Christianity *starts* with God and his desire to offer redemption to the world; it doesn't start with humankind and its own religious quest for security or significance, whether these amount to prejudice, control, manipulation and exploitation (as so often throughout history), or whether they are from less malign motives

Framework
Hypothesis

The renowned North African, Augustine of Hippo, in the 5th Century was as far as we know the first Bible teacher to notice that the first six days of creation, as recounted in Genesis 1, are neatly arranged in two sets of three which intriguingly parallel one another; he noticed that on each of the first three days three separations are described – between night and day, between down here and up there, and between sea and land; on the next three days these three separations are demarcated by further

created entities, e.g. the moon and sun demarcate night and day; Augustine took this observation in the direction of his beloved Platonism and did philosophy with it; he usually did!; a millennium and a half later in 1924 a liberal-sceptic theologian called Arie Noordzij revived Augustine’s observation and took it elsewhere; rather than think in terms of separations he developed the notion of kingdoms (created in days 1-3) and the kings of those kingdoms (created in days 4-6), e.g. the Sun rules the Day, etc.; getting to the point, he therefore argued that Genesis 1 can only be read figuratively, and not as a ‘literal’ or scientific or chronological account of the origins of the universe – what looks like narrative is in fact a deliberately constructed ‘Framework’ for a set of theological points; hence this is called the Framework Hypothesis, and is beloved of many TD-ists and some ID-ists, as it provides, it is suggested, a means “to rebut the literalist interpretation of the Genesis creation ‘week’ propounded by the young-earth theorists” (to quote one of them); YEC-ists think it’s a desperate measure to make the Bible fit science; what this current author thinks of it is not for this paper, and awaits another (forthcoming!)

Genetic Drift

See Allelic Drift

Hermeneutic

A ‘Hermeneutic’ is simply an interpretative method, often applied to the interpretation of the Bible; derives from Greek (for ‘interpret’ or ‘translate’)

Hypothesis
and Theory

A hypothesis is a cogently stated meaningful conjecture that is not proven, but looks possible or likely as an explanation for whatever is under consideration; it differs from the word ‘theory’ in that the latter is often used to denote a hypothesis, or group of hypotheses, that have in the corporate estimation been proved, so that it can be stated to be *true* without much fear of contradiction (hopefully), at least amongst a large group of convinced devotees; a hypothesis is always uncertain; a theory often certain – but note that the word ‘theory’ is rather slippery, because it is often used instead of ‘hypothesis’, as in a statement like, “I have this theory about why hypo-cosmotic intra-stellar gangligoons are so unstable ...”, meaning I have come up with a novel hypothesis

Inductive reasoning,
or Induction

See Abduction

Intelligent Design

By Intelligent Design in this paper I mean strictly and only the scientific (and mathematical statistics) programme that argues that the evidence for Darwinism is not as strong as Darwinists claim; i.e., that Natural Selection operating on Random Mutation cannot account for all evolution by Common Descent (Chemicals to Intelligent Animals Evolution); also that in fact Darwinism can only account for minimal evolutionary steps; also that having made that claim, it is content to remain completely agnostic for the time being about exactly what scientific paradigm to replace Darwinism by; i.e., it’s a “We don’t know” programme; I am aware, however, that in the US Intelligent Design has become a huge edifice which is caught up with other programs (such as political ones), and over which many claims of ill-behaviour have been

made, and which is represented by the renowned Discovery Institute; this is entirely other than what I'm presenting here; I wouldn't myself want to be associated with the US edifice.

Irreducible complexity This term describes the observation made by ID-ists that many biological 'machines' (a notable example they point out is the bacterial flagellum) need several (or many) components all in place and working together, such that omission of one of them renders the whole inoperative; equally, it is argued that there are some things of which the constituent parts *could not* even have been together before the thing existed; ID argues that Darwinism cannot account for the evolution of such complex machines by a series of small steps, because all the steps must be needed at once; so this argues against Darwinian Evolution by series of tiny improvements

Literal This is a slippery word; these days (modern view), as used by many, it tends to mean 'non-figurative', and a dictionary may define it thus; however, it's not that simple; for one thing, there's a post-modern use of the term where it's a synonym for 'serious', as in the (over-)statement, "I'm literally sick with worry", and if such is said you don't actually know if they're really sick or not; is it a post-modern usage or modern usage? – it may just be a post-modern exaggeration; secondly, it's often useless, as when you are asked, for example, What's the literal meaning of 'dry' in 'a dry-stone wall' or 'a dry white wine' or 'not a dry eye in the house'?; thirdly, there was a previous use where it didn't mean 'non-figurative' at all; rather it originally meant 'according to the relevant literature type as intended by the author' – so, for example, the literal meaning of "My secretary is worth her weight in gold" would have been, "My secretary is very valuable to me indeed", and NOT, "My secretary is currently on sale for several billion pounds o.n.o."! It's this meaning of the word encapsulated in the expression known to Bible students as the 'Literal-Historical Method' or 'Grammatico-Historical Method' – i.e. reading the Bible in its literary and historical contexts; this 'literal' interpretative method is one of the four medieval hermeneutical methods, the others being the 'allegorical' (where one physical entity stands in for another entity), the 'tropological' (moral), and the 'anagogical' (mystical) interpretations. It should be noted that an allegorical interpretation, which may or may not have been intended by the author, is figurative, but not all figurative interpretations are necessarily allegory; in the medieval scheme a literal interpretation could be figurative, as in the example above, 'not a dry eye in the house' – this isn't allegory; it's a figurative expression whose literal meaning is 'everyone's crying'. Because of the confusion, I myself tend to avoid using the word, and replace it with 'actually', or 'really', or 'physically' or some such

Macro-evolution and Micro-evolution Micro-evolution is the notion, almost universally accepted, that within a particular species Natural Selection operating on Random Mutations can and frequently do result in small observable adaptations; Macro-evolution is the notion, inherent in Darwinism, that a long series of adaptations by Micro-evolution can and do result in new species

Materialism	In this paper Materialism can be taken as a synonym for Naturalism; outside the arena of this paper the term is sometimes used to denote the craving after material things by humans – but that’s different territory, and it’s not so used here
Moderate ID	This term is my invention for the purposes of this paper only; I have defined it as the basic ID programme, consisting of serious scientific doubt as to the ability of Darwinism to explain everything, belief in irreducible complexity, a consequent conviction of the appearance of Design and Teleological purpose, and a willingness to remain uncertain about evolutionary/creative mechanisms
Multiverse Conjecture	See end of Anthropic Principle
Mutation	Broadly speaking, a cell Mutates when there is a change in its DNA (likewise with non-cellular organisms such as viruses, though some have only RNA that mutates); the cause of the change is immaterial – it’s the effect of the change that Darwinism believes is relevant; a Mutation may have one or more beneficial effects, but more often (much more often) it will have a whole raft of deleterious effects; Darwinism rests upon the supposition that every now and then a mutation happens where the benefits outweigh the damage, and this gives the altered form a greater survival chance than its predecessor; Beneficial Mutations of multi-celled organisms are passed on to the offspring when they happen at the point of replication of the organism – e.g., when a sperm or an egg mutates during sexual reproduction in mammals
•Random Mutation	The word ‘Random’ doesn’t mean a Mutation just happens without cause; rather, it means that the cause, whatever it is (e.g. ionising radiation), doesn’t have any directing intelligence giving it teleological purpose
Naturalism	The view that the cosmos, its matter and its energy and its radiation is all there is in existence; further, everything that happens in the cosmos is undirected by anything outside the cosmos (because there is nothing outside); thus there is no god, no supernatural beings at all; all religion, all mysticism, all ideas, all thinking, all sensory experience, all emotion is a function of the normal naturalistic operations of molecules and chemicals in the human mind, and the human mind is just part of the human body; Naturalism is sometimes called Materialism, but see Materialism above
Natural Selection	This is the view, essential to Darwinism, that if a mutation and consequent adaptation grants an advantage to the altered form, to the extent that the chance of survival is better than its predecessor, then given enough time the descendants of the altered form will predominate in the population
‘Nature, red in tooth and claw’	A quotation from the poem, <i>In Memoriam A.H.H. or The Way of the Soul</i> , by Alfred Lord Tennyson; A.H.H. was a friend who died suddenly; the poem also contains the famous “better to have loved and lost ...” quotation; in writing the poem Tennyson was apparently influenced by

the famous 1844 work *Vestiges of the Natural History of Creation* by Robert Chambers, a pre-Darwin text advocating a kind of naturalistic evolution; the term 'Nature, red in tooth and claw' is frequently used in the Origins debate to describe the 'cruelty' of the natural order in the quest for survival at all costs (the 'survival of the fittest'), which is held by atheists to be a problem for TD-ists and ID-ists (and indeed it is); it's not in itself a problem for YEC, because of its belief in perfection before the Fall, with cruelty, bloodshed and death coming only with the post-Fall curse by God on his creation (as YEC-ists and other orthodox Christians see it)

Neo-Darwinism

See under Darwinism

Ockham's (or
Occam's) Razor

Ockham is a small village in Surrey adjacent to the M25, where one William of Ockham was born in the late 13th century. He was of brilliant mind, and became a renowned philosopher. He is popularly known for his famed 'razor', which is an investigative principle formally stated as: 'entities should not be multiplied unnecessarily'. What this means is that when any investigator is formulating hypotheses, the simplest ones are generally to be preferred. Complicating things unnecessarily is generally to be avoided. If a simple explanation serves just as well as a complex one, then there is no need for the complex one.

Ontological

A Greek word, beloved of philosophers and theologians, which means something like, 'pertaining to existence'; Descartes' "I think, therefore I am" was an ontological statement; "God is" is an ontological statement; "It is of the essence that ..." commences an ontological statement

Paradigm

A paradigm is a coherent set of beliefs, each taken axiomatically, which together are the components of, and comprise, a viewpoint on some matter or other; the coherent set of beliefs is then taken as the basis of other conclusions that follow from it; in other words, the paradigm explains other things; all of AD, TD, YEC, and ID are paradigms for explaining Origins; Naturalism is a paradigm; so is Christianity

Peer review

The submission of one person's work (in any field, not just science), or the work of a group, to the scrutiny of a considerably wider body of people working in the same field, who are thus qualified to assess the accuracy, cogency, analysis, etc., of the individual or smaller group; peer review is absolutely standard practice in all academic fields, and is a safeguard against mistaken results or biased analysis accruing from too narrow an academic base; it's also a safeguard against silly entrepreneurial, idiosyncratic individualism or megalomania, and a safeguard against intentionally falsified results and other forms of cheating

Phenomenology

A long word with a simple meaning. Phenomenology refers to that which is empirically *observed* by an observer, as opposed to that which might be predicted from past experience or application of known laws. When a happening is experienced, and an observation of the happening is made, using any or all of the senses, but without any reference to how it might relate to any prior theory, and without any reference to its significance, then it is called a 'phenomenological' observation

Punctuated Equilibrium	See end of the glossary entry on Uniformitarianism
Race	See Species
Religion	A catch-all term that describes the view that the cosmos is <i>not</i> all there is – that there are supernatural entities that are in some sense relevant to human existence and in some sense command the devotion of the Religionist (the follower/adherent); Religions encompass Theism, Deism, Pantheism (either a belief in multiple gods, or the belief that God is everything and everywhere in some strange sense, depending on how the term is used), Panentheism (God is in everything in some strange sense – Gaia is a sort of Panentheism, with the deity being Mother Earth), and many varieties of Mysticism and Spirituality
Saltationism	See end of the glossary entry on Uniformitarianism
Science	The observation and investigation of what there is to see – the cosmos – employing experiment (repeatable experiment where possible), the formulation of hypotheses based on that which is observed and not on the basis of preconceived or prejudiced ideas or beliefs, preferably falsifiable hypotheses, the testing of those hypotheses, again by experiment and appropriate use of mathematics and mathematical statistics, the reviewing and revision of those hypotheses as necessary, the submission of all this to constant peer review, and the repeating of the whole process until by common consensus conclusions are drawn and theories and laws formulated with appropriate degrees of provisionality attached
•Pseudo-Science or Prejudiced Science	Purports to be science, but marred, sometimes heavily, by prejudice, dishonesty, fraud, self- or group-interest, fear, pride, pomp, megalomania, insecurity, or a host of other serious defects that make the scientific results unreliable; the task of good science is to observe and investigate what there <i>is</i> to see, not what the observer <i>wants</i> to see; fortunately peer review is a considerable safeguard against the worst excesses of pseudo-science; on the other hand, peer review and the weight of the majority opinion can sometimes stifle innovation and bold thinking and counter-normal ideas, and has frequently done so, often delaying the advance of science thereby
Special Creation	This term, as used by Christians and others who believe in an intervening God, means that during the existence of the universe in time, or at its beginning, there have been occasions/periods when the Creator has intervened in the normal processes of nature as governed by natural laws, in order to create new material/artefacts; YEC-ists in particular hold that the first week of creation was a series of acts of Special Creation, in which the Theory of Evolution had no place; note that by ‘laws of nature’ in the above definition we acknowledge that these were the invention of the Creator himself, so Special Creation means the Creator intervening in the processes of his own laws
Species and Race	Plural: Species. A grouping of organisms of like kind as defined by their genetic make-up. All individuals within the species have the same genes,

excepting minor variations between individuals (such as eye-colour, skin colour, height in humans). Where groups of individuals within a species share characteristics they are called races. A defining characteristic is that different species cannot mate and produce fertile offspring. It is noteworthy that Darwin used both terms, race and species, apparently interchangeably, in the title and sub-title of his famous publication.

•Speciation

In one sense this describes the division of organisms into different species; in another sense it describes the emergence of a new species hitherto unknown

Teleology

A word that refers to the idea that there is a purposeful end in view to whatever is happening – things are not just rambling on randomly; rather, there is direction and control to the process aiming at some intended end; this is a teleological statement: “I did this or that *to the end that* such and such might happen”; as is: “I’m aiming for a result”

Theism

The view that there is a God who is Creator of the Cosmos and who is constantly and intricately involved in its disposition and its workings; further, this God created humanity as the ‘high point’ of the cosmos, i.e., as the teleological purpose of the cosmos, and is profoundly interested in the affairs of men; the main Theistic Religions are Christianity, Judaism and Islam, but there are others; thus a Theist might be a Christian, but isn’t necessarily

•Atheism

The view that there is no god or gods which/who have any interest in or influence on the proceedings of the cosmos in general and the affairs of humanity in particular; strictly speaking Atheism is A-Theism, i.e., it doesn’t believe in a *Theistic* God – this technical distinction allows Deists to belong to the AD camp

•Deism

The view that there is a creator god who once initiated the cosmos and set its laws, but one who/which had no further involvement in its operations and has since then been entirely uninterested in and uninvolved in the workings of the cosmos or in the affairs of humanity; this god is a ‘distant’, ‘remote’ god who is irrelevant; Darwin may possibly have been a Deist of some sort, but had almost certainly rejected Theism, notwithstanding half a dozen or so references to the Creator in his *Origin*, not least in the famous last sentence of the later editions

Theory

See Hypothesis

Uniformitarianism

This doesn’t mean nothing ever changes; rather, in the sciences generally, it refers to the notion (inherent in Darwinism) that the *processes* by which things move forward in the cosmos never themselves change; change in what the world looks like happens by means of never-changing processes; in particular the *laws* governing how things change and work don’t themselves change; processes and the laws governing them are not only uniform through time, but also universally across the cosmos (in which respect it stands in contrast to some versions of the Multiverse conjecture); in geology, the term has been used to describe the idea, opposite to Catastrophism, that the geological processes which, over extraordinarily long periods of time (‘Deep Time’), have shaped the

earth and controlled its development, are uniform (e.g. erosion and the deposition of sediment), and thus that the geological evolution of the earth has been gradual (hence the alternative term, 'Gradualism'); the current consensus in geology seems to favour a mix of Uniformitarianism and Catastrophism; in Darwinism, the term describes the idea that all Darwinian evolution is by gradual mutational processes (sometimes called 'phyletic gradualism'), and not by, or not including, sudden large evolutionary leaps forward within or between species ('saltations' (large leaps) hence 'Saltationism', but more usually called 'Punctuated Equilibrium'); most Darwinists are Uniformitarian, but some have been advocates of Punctuated Equilibrium; see also Catastrophism

Universal Ancestry See Common Descent
Young Earth See under Creationism
Creationism

Display of Mind

A Considerable Speck

A speck that would have been beneath my sight
On any but a paper sheet so white
Set off across what I had written there.
And I had idly poised my pen in air
To stop it with a period of ink
When something strange about it made me think ...

It paused as with suspicion of my pen,
And then came racing wildly on again
To where my manuscript was not yet dry;
Then paused again and either drank or smelt –
With loathing, for again it turned to fly.
Plainly with an intelligence I dealt ...

I have a mind myself and recognize
Mind when I meet with it in any guise
No one can know how glad I am to find
On any sheet the least display of mind.

Robert Frost, 1939

Apology

Apologies for this panel and its verbiage – the site it was downloaded from requires it, I'm afraid, for usual safeguarding reasons.

Disclaimer

This paper is entirely the work of the creator/author. If at any stage I have expressed any idea in a way closely similar to the way anyone else has expressed a similar idea, then this is entirely coincidental and unknown to me at time of writing.

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