

Denis Alexander's "Creation or Evolution – Do We Have To Choose?" reviewed by David Anderson, <http://david.dw-perspective.org.uk>.

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Introduction

Dr. Denis Alexander, a fellow of St. Edmund's College, Cambridge, and director of the "Faraday Institute for Science and Religion". Dr. Alexander is both an evangelical Christian and a professional biologist. He is also a Darwinist, not a creationist. The aim of his book is to explain why you should be too.

I was given a copy of this book in Summer 2008, and its contents deeply concern me. Dr. Alexander professes to be an evangelical. The methods of Biblical interpretation which he applies in this book, however, are not. I do not agree with the book's overall thesis - that Darwinism can be harmonised with the Bible - but the liberal hermeneutical methods which are used to justify that thesis concern me more. Dr. Alexander does not present any argument for his assumptions in this book, but simply presents them to the naive reader as unquestionable.

If evangelicals take the contents of this book to heart, they will not only be endorsing a certain set of conclusions regarding origins; they will also be embracing a seriously erroneous approach to interpreting the word of God as a whole, and its relationship to other areas of knowledge. Such an approach, if carried out consistently, will ultimately damage the whole structure of Biblical revelation and the gospel itself - a road which I believe Dr. Alexander in this book has already travelled a long way down. I agree with Professor Andrew McIntosh, whose review in "Evangelical Times" published in September 2008 asserted as follows: "By writing this book, Alexander has placed himself on the side of liberal theologians and, in this reviewer's opinion, has departed seriously from the evangelical faith."

The following review was composed bit-by-bit after I had read the book once and decided to go through it again. It amplifies and justifies the above statement of concern. It is not a comprehensive review; there are many other issues of fact and interpretation I would take issue with. It is intended to focus on some key issues, especially the above ones. As it was not proof-read for professional publication, there are likely to be various typing and other mistakes, which I hope you will forgive!

The Preface

In his preface, Dr. Alexander (henceforth DA) begins by telling us that his book pre-supposes the entire authority of the Bible and so is mainly written for Christians; fine. He then goes on to say that the creation/evolution debate has generated too much heat and not enough light, and that we need to make sure we disagree in a loving way. The disagreement, he says, is not over an essential and central biblical doctrine. The fact that God created and sustains the universe is essential and central; but just how he did so is a peripheral matter (the methods and mechanisms), an in-house debate in which we must speak with love to one another and on which we can fellowship whilst in disagreement.

OK, since we're being asked to, let's get our cards on the table. Many fine Christians have endorsed Darwinism, and creationists are no more immune from using harsh or intemperate language than anyone else in heated matters is. It won't be hard to use Google to find people who are both creationists and staggeringly rude, as well as Christian Darwinists who speak respectfully and edifyingly.

We have an early clue, though, from this introduction as to where the book is going to go. The Bible, we are going to discover, is basically empty of the significant content as to any of the how, where or when God created. It just tells us that he did, in a wonderful way that omits any details that relate to time or space. That's a slight overstatement, as Dr. Alexander will allow a few peripheral details that don't conflict with Darwinism to come in - but no others. The Bible gives a nice ethereal spiritual interpretation of the world; Charlie tells us the hard facts of history and science.

The "central / peripheral" distinction, if pushed in this way, ends up begging or obscuring the key question. Does Darwinism by its innate tendency undermine the Christian doctrine of creation? Is its nature to take away the foundations of Christian belief concerning a perfect creation at the beginning, a disastrous all-encompassing fall, the entrance of death to spoil God's "very good" creation, a plotline and favoured line from the beginning until the coming of Christ as Saviour? Does the idea of evolution inherently imply some form of naturalism or deism (Darwin himself was a deist)? It might be possible for a man to introduce a family of termites in his basement without suffering any damage... but in the normal course of things there is only going to be one ending.

It's one thing to note that embracing Darwin is not an automatic sign of damnation. Well and good. But

the real question is whether Darwinism undermines the actual gospel way of salvation. Here, creationist and atheist agree - if one is true, then the other can't be. One implies this and the other implies that, and between this and that there is fundamental contradiction. The world was created very good and fell, or it began in chaos and has undergone gradual improvement since. God ordered all things by an immediate word at the beginning, or order only comes through ongoing and continuing processes which are still active today. Either one is true, or t'other - but not both. We may both embrace Christ as Saviour; but if your teaching undermines the Biblical gospel, you'll have to allow me the freedom to say so without accusing me of being unloving.

It's interesting, then, to come to the end of DA's book and read the postscript, because by then times have changed! Now that the case has been made for the full compatibility of the Bible with Darwinism as God's method of creation, we learn that Christians who assault the teaching of evolution "are embarrassing", and they "bring the gospel into disrepute". They are ignorant and creating significant barriers to unbelievers to faith. They are a red herring which distract people from doing something useful. They are like the man in Matthew 25:14-30 who buried his talent in the ground (Dr. Alexander doesn't actually go on to spell out the parable's implication that presumably we'll be cast into outer darkness where there is weeping and gnashing of teeth). I didn't really feel the warm and fuzzies there. Perhaps, I wondered, Dr. Alexander's opinion changed in between writing one and the other? Or perhaps it was just that he got out of different sides of bed on the two days he wrote those bits? Or amnesia struck between the beginning and the end? Or perhaps he's just softening us up at the beginning, and then when he's made his case and thinks he's persuaded us, he tells us what he really thinks?

The preface ends with the statement that DA hopes we'll end up agreeing with him the "Book of God's Word" and the "Book of God's Works" are in full harmony. I don't think any creationist ever doubted that... it's just whether either book has any harmony with Darwinism that we're a little bit sceptical over. The interesting question will be, as DA's book develops, how is he going to interpret those two books? Which interprets which? Which is authoritative and infallible, containing sufficient rules to interpret itself, and which is subject to the fallible judgments of fallen and foolish man? Are these two equal books, or are there differences in them that will affect how we relate them? We'll see...

Chapter 1: What Do We Mean By Creation?

Chapter 1 is titled "What do we mean by creation?", and seeks to give us a very gentle general introduction to the question. First, DA makes the point that all Christians are in some sense of the word, "creationists" - we believe that everything that is ultimately due to God. This is regardless of what we believe about how God created. Nevertheless, words are defined by their usage, and so DA accepts that the word "creationist" often means something more as commonly used - but the real thing is not to quibble over words. It is how we answer the key questions concerning how we interpret those early chapters of Genesis, and whether it is compatible with the theory of evolution, and so on. OK.

From there, DA goes on to explain that in interpreting the Bible, we have to use skill and caution. It is written in foreign languages, and comes from foreign eras and cultures. We must be sensitive to such things as genre, the expected audience, purpose, and any relevant extra-textual knowledge, and so on. The next few pages unpack these issues a little bit, and then we are given a brief word study of the Hebrew words which are usually translated in the semantic domain of create, creation, etc.

Frankly this first chapter is rather plodding and not very well structured; the themes don't develop naturally so much as suddenly shift. Still, that's by the by; it's DA's theology that worries me, not his literary skills (the rest of the book is much better in this regard). This chapter is preliminary and there's not much meat on the table yet. There are, though, two issues which did catch my eye. Both were issues of omission, and this became a common theme as I went through the book. I found DA to be a skilful writer, widely read and informed, but ultimately, a bad theologian.

How so? Because DA basically treats the Bible the way that children do the pick-and-mix counter at Woolworths. He has a blend he wants to create, and so he selects some from here, some from there, to get his final product. Something like brewing up a good coffee - half a handful of beans of this one, half of that one, so on and so forth and voila - here's your drink, I hope you like it.

When DA (a self-conscious evangelical) introduces the key questions as to the interpretation of the Bible, I found him *in practice* to be very much in the modernist camp. What are his key principles for Biblical

interpretation? These:

- What kind of language is being used?
- What kind of literature is it?
- What is the expected audience?
- What is the purpose of the text?
- What relevant extra-textual knowledge is there?

All fine and good, as far as it goes. The Bible is written in human language, and we must look to the ordinary meaning of the words in all their various contexts to understand what it means. DA emphasises that the Bible has dual authorship, and the authors use their own styles and write freely from their own minds. OK. But what's missing from this picture? It's the key principle that the Bible is, to use the title of a particular book on the subject, *not like any other book*. There are additional factors involved which have a significant impact on interpretation, and cannot be overlooked. Theological liberals treat the Bible as if it were any other ancient Eastern bit of literature, and stop with the list of questions above. Evangelical Christians, though, are meant to acknowledge that the above questions are important *but well short of sufficiency*, because we believe that the divine authorship of the Bible (which DA believes in) is primary, and that as a result it is indispensable in interpreting any one part of the Bible to compare it with the rest of the Bible. The Bible is our ultimate authority, and therefore takes the prime place in interpreting itself. It is not our job to take this interesting fact here, that fact there, and blend them together to give a plausible and defensible theory of what Genesis means. True Christian exegesis means to find out what the Bible itself actually teaches us what Genesis means. The freedom to brew up our own blend is not there for us - we've already been told how it should turn out.

For Genesis, that means that the correct interpretation of its early chapters is ultimately decided, not simply by how Genesis on its own would be read by a second-millennium-BC dweller of the East; but how Genesis is interpreted by the later authors of the Bible. This question is fundamental and primary, and it is not just a slip that DA misses it out. As I read through his book, I found that with the exception of a brief examination of Romans 5, there was no real effort to survey the question, "how does the Bible itself interpret Genesis? How did Christ use its teachings and what was his and the apostles' hermeneutic? What are the results if we apply the hermeneutic from those places that they do interpret it consistently across the whole book?" Ultimately we will as we read on find that DA interprets Genesis against the background of a reconstruction of the paganism of the early east, and that for him forms the primary context.

The other notable omission was whilst DA was giving us some warnings about mistakes we can make in reading our Bibles. They were good warnings. Westerners can be prone to treating the Bible as if it were written in our own culture, which has been conditioned by the intellectual movements of the past couple of centuries - and such readings will just be alien to the true meaning. So, DA warns us against the danger of reading passages with excessive literalism - reading passages as if they were written by modernists without sensitivity to how the original writer intended them.

Where, though, I wonder is the opposite warning? We live in times dominated by Enlightenment thought. We live in the unpleasant afterglow of over a century of unbelieving theological liberalism. We live in times when people think of the Bible in terms of myth, ancient religious stories to do with the inner, private world of personal opinion, not the real world of time and space. Literalism has slain its thousands, but liberalism its tens of thousands. It is not excessive literalism which has ruined the mainline denominations of the professing Christian church; it is liberalism. So where is DA's warning that we might be in danger of treating straightforward matters of history as if they weren't? Where are we alerted to the risks of facing the Bible's cold, hard assertions about real history, real space and time, and committing the sin of unbelief in their face? Like the Sadducees, missing the text's plain teachings about the real world and reducing it to an ethereal spiritual core of mere moral teaching?

It's not a coincidence that DA missed that aspect out. Because that's where his book's ultimately going to take us in its handling of Genesis...

Chapter 2: The Biblical Doctrine of Creation

Chapter 2 is entitled "The Biblical Doctrine of Creation", and is intended to complete the broad overview that began in chapter 1 ("What do we mean by creation?"). The next four chapters are on the question,

"What do we mean by evolution?" and answering objections, before going on to ask whether the accounts of creation given to us by the Bible and by the theory of evolution can be harmonised, and how. So this chapter finishes off the overview of creation. In this chapter, DA discusses the Biblical concept of creation in broad terms, setting the parameters for the later discussion of how in particular we understand Genesis and what it has to do with Darwinism.

The headings will give you some idea of how the chapter develops, the first four being offered as "four key points that emerge about God in relation to his creation"; "God is transcendent in relation to his creation", "God is immanent in his creation", "God is personal and Trinitarian in his creation", "The three tenses of creation", "Creation and miracles", and the longest section, "Does the Bible teach science?".

Looked at overall within the context of the question posed in the title of the book itself, this chapter is one enormous word fallacy. It does not deal with the doctrine of creation proper, i.e., the question of origins and what the Bible teaches about how the universe and everything in it began. Rather, it deals with the doctrine of God's relationship to the creation as it now exists, i.e. the doctrine of providence. DA attempts some kind of defence for this in the opening paragraph of the chapter. He says that the Bible's teaching on creation includes origins, but is much more than this, and we shouldn't become too fixated on it; the majority of the teaching on creation is not found in Genesis, but throughout the whole Bible. The language of creation is much broader.

If we're talking about "the created order", then this is all fine and dandy. But this is supposed to be a book about origins, not anything and everything to do with the created order. What we have here is simply a word fallacy. That statement would be going too far, if the next chapter was going to sharpen things up and be "The Biblical doctrine of origins" - i.e. if DA weren't simply going to discuss providence instead of origins. But in fact, that's just what he is going to do; this chapter finishes the overview of creation with scarcely a mention of origins. Under the heading "The three tenses of creation" we get only a few general words about the past creation; in a later chapter there will be some specific analysis of the early chapters of Genesis (there's none in this chapter, despite its title), but even that chapter will minimise the relevance of Genesis to the question of origins. That's why I call it a word fallacy. We use the word "creation" commonly to mean origins. But DA takes the word and then slides over into any concept connected with creation. Bringing in providence, DA basically avoids discussing at all the doctrine of creation proper as understood in evangelical orthodoxy. That's a fairly incredible procedure when you have a Bible whose opening sentence is "in the beginning God created the heavens and the earth".

It's not, however, an incredible procedure from DA's point of view, because as the book unfolds one thing becomes clear; DA's doctrine's ultimate end is to fold creation into providence and obliterate it as a separate category. Whilst the Scriptures teach that creation is indeed a past event at the beginning, Darwinism teaches that it is an ongoing process throughout almost the whole of history that continues at the present time. In fact, as far as higher life forms go, it is an ongoing process in which the juicy bits are very recent - overwhelmingly nearer to the present time than to the beginning of time. DA himself will explain in a later chapter with impressive literary skill that, if we view the history of the universe as a 24 hour clock, then man only appeared on the scene 3 seconds ago, at 23:59:57. Man was not created in any meaningful sense "in the beginning", but in reality at the end. His creation is a result of the God working immanently in the created order through the Darwinian process - i.e., it is a result of providence, not of an original supernatural act.

That's why DA structures and proceeds in the chapter in the way he does. It's not simply that he wants to remind us that the vocabulary of the created order goes beyond origins. It's because his doctrines ultimately collapses the matter of origins and makes talk of it redundant.

Immanence and transcendence

DA's section on God's immanence in creation is almost 5 pages, whereas his transcendence gets only just over 1. It's all fine as far as it goes. In the context of the book as a whole, though, this bit is a softening-up exercise, and the one-sided emphasis is not a mistake. Where we're going is that God's immanence in creation is going to be DA's answer to the objection that Darwinism is essentially an atheistic doctrine. As God is immanent everywhere, that includes him being immanent in the Darwinian process or any other theoretical or actual process, so therefore it can't be atheistic. Working this out, though, is postponed to a later chapter. What we're really interested in now, are the two sections "Creation and miracles", and (next time) the longest of them all, "Does the Bible teach science?"

Creation and miracles

Here's DA's argument in this section, summarised. It's good to put it in short form (which DA doesn't), because then its sheer fallaciousness is much more quickly apparent:

- The Bible uses certain words to refer to miraculous events.
- These words are not used to refer specifically to the original creation.
- Therefore the original creation is not a miraculous event.

The section starts with a feature that becomes increasingly frequent as the book goes on - the anonymous bogeyman. Some Christians, we are told, view God's creative actions as being equivalent to miracles. Fair enough; everything came out of nothing, and that's pretty miraculous I think; that's not really negotiable amongst Christians. Then, this: "Other Christians invoke miracles to explain the existence of those aspects of the created order which they believe can never be understood or explained by science." Well, that's fair enough in one sense - understood one way, it's pretty much the standard definition of a miracle, if by "science" we mean those things we study which are the regularly and orderly actions of God, and by "miracles" we mean those things which are extraordinary acts of God. That would basically be a tautology. But who exactly are the "some Christians" and "other Christians"? Because I don't think DA wants us to interpret him in this way. He's suggesting that there are some group of dullards out there who are indulging in the "God of the gaps" fallacy - I don't understand this, therefore it's a miracle; "God did it", or if you're one of those very high-brow atheists we come across on el Internet, "goddidit". This kind of "some Christians believe..." line keeps cropping up in the book when DA wants to distance himself from the creationist position, but it seems that he knows that the thing he's suggesting isn't actually the position of any mainstream or representative creationist. Hence, he hides behind the "some Christians believe..." trick, which gets him out of having to document what he says, or show that reputable creationists actually believe it, but still allows the suggestion to linger in the air for the undiscerning.

Putting that aside, though, we need to actually look at the argument itself. It's another word fallacy, after that embodied by the chapter as a whole (see last time). DA picks out various words which are used in the context of miracles, signs, wonders, and so on. Then he observes that these words aren't used in the creation account; then he concludes that therefore, creation is not a supernatural event. This, of course, then leaves the door open for us to accept that creation is through the Darwinian mechanism, which involves the outworking of predictable processes over a very long period of time.

This kind of abuse of word studies is what gives study of the original languages a bad name. The root error in this case, is that DA makes the arbitrary restriction that only a certain group of key words is allowed to signal the world of miracles; if those words don't appear then it doesn't matter what words are used - we don't have a miracle. So even if the Bible were to say, "this was a supernatural event, you dummy!", it still wouldn't be a supernatural event, because the word "sign", "wonder" or whatnot doesn't appear in the sentence and "supernatural" wasn't on the list we drew up. The words which DA chooses are those which are used especially in connection with the miracles performed at the time of the Exodus, and those performed by Christ in his fulfilment - the greater Exodus he achieved through his death. They are the words to do with signs of redemption. Creation, of course, is not an act of redemption, and hence it's not a shock to find that the vocabulary to do with the highlighting of acts of redemption through wonders and signs isn't used in connection with it. Creation and redemption are theologically distinct; to insist that the vocabulary of the supernatural in one category must be the same in the other is an assertion without any necessity behind it. DA, though, makes the ultimate argument from silence by asserting that this very absence is, rather than being because creation isn't redemption, instead definite teaching for us that the creation event was through predictable processes instead of an immediate act of God.

Surely we have here one of those places where a truth is clear to every child who picks up a Bible, but obscure to the man who's buried himself in technical arguments, word studies, and the desire to rule our special creation a priori. A small child would know that if you want to establish whether or not creation was a supernatural event, you should read the language of Genesis 1, and what the rest of the Bible says in reference to those early chapters. Alexander, though, manages to establish that Genesis 1 doesn't describe a supernatural event merely by noticing that the word group to do with signs of redemption isn't used in that chapter, and without any examination of what words are actually used and more importantly, how they are connected to each other in sentences (as if the mere presence of this or that word decides what doctrine is or isn't taught). I grieve at this chapter, because many naive readers will surely be wowed and impressed - "look, the man mentions words in Greek and Hebrew; he must be right!" But the

fundamental structure of the argument is entirely bogus.

Does the Bible teach science?

The longest section in this chapter is under the heading "Does the Bible teach science?", and rounds off the two chapters which aim to give us an overview of the Biblical position, before we go on to get an overview of Darwinism. (The chapters after that then ask how the two can be integrated.)

There are some good points scored here against those who have a naive, Richard Dawkins-style take on how religious belief and scientific research can interact. Alexander aims some shots which hit the target in criticising some modernist assumptions. Here, we're talking about the idea that science is the primary arbiter of all truths - any kind of "truth" which isn't a "scientific truth" is an inferior species. This is the empiricist fallacy. The set of justified beliefs is much larger than the set of beliefs subject to verification via repeatable experiments. How much does my wife love me? I'd say quite a lot, but I can't measure it with the love-ometer and give you a score on a scale from 1 to 10.

DA also seeks to explain something of the principle of "accommodation"; that the language of the Scriptures is designed to be intelligible to its readers, who were to read it according to its purpose, not according to any arbitrary whim they should entertain. It is not to be read as if it were an edition of *The International Physics Monthly*. The words should not be interpreted as if they have coded technical and scientific meanings to demonstrate to us that in fact Moses was familiar with how mobile phones work. Just because modern secularists think that "science" is a superior kind of truth does not mean we have to bend the Bible to show that it's science in order to stop it coming off second best.

In the presence of these criticisms of modernist errors, then, it is ironic to see that ultimately DA takes a position which involves one of the biggest and most damaging to Christianity of them all. In his zeal to stop us from reading the Bible as science, DA comfortably avoids driving his cart into the ditch on the left hand side of the road. Sadly this is at the expense of making a bee-line into the ditch on the right side instead. The position which DA leaves us with is one right at the top of the list of modernist axioms. Ultimately, modern scientific journals contain objective science, and the Bible contains religious truths, and never the twain shall meet. The Bible is not intended to, and does not, teach us anything about the concrete world that you can see and touch; it contains spiritual truths for salvation. Hence DA approvingly quotes other writers with words like "the Holy Spirit did not desire that men should learn things that are useful to no one for salvation" and "[Scripture is] a Rule of our Faith and Obedience, [but not] a Judge of such Natural Truths as are to be found out by our own Industry and Experience" and "You receive no instruction on physical matters [from the Bible]. The message is a moral one".

This is ultimately a false dichotomy, and a rank modernist one at that. The God who has acted to save us is one who has acted in the world of space and time. His intervention is a historical one, involving real atoms and molecules. It is not an other-worldly salvation that only exists in an intangible spiritual realm, but in the concrete one that we live in. In this part of the chapter, DA continues to employ the strategy that has already been noted in this review. He sets up the question upon his own terms, with his own choice of dubious dichotomies, and then brings in the "some Christians believe..." straw-man to set the backdrop that he'll paint his own views against. The clear implication, given the purpose of the book, is that creationists believe that Genesis is to be read something like as if it were a copy of Newton's *Principia*, science written ahead of its time. Alexander writes, "A question that is often raised when thinking about the biblical doctrine of creation is whether the Bible itself presents its teachings on the subject as if they represented some form of modern science" and "There is a certain irony in the reflection that the keen atheist Prof. Richard Dawkins shares with some Christians their idea that religious and scientific truths belong to the same domain." Here are those strange bogey-men, "some Christians" again. Who are they?

The intention of the suggestion is to put into the reader's mind that this is what creationists think. That impression is confirmed because such hints are the only false suggestions that Alexander contrasts his own view with. The book is meant to refute creationism; yet DA's descriptions of creationism are off-the-wall. Ultimately this is simple intellectual dishonesty. The briefest survey of creationist literature from any kind of mainstream source would show that DA has set up and shot down a legion of flaming straw-men. No mainstream creationist thinks that Genesis is intended to be interpreted using the paradigm of modern science. The real question, which they raise again and again, is one of history. Genesis is not an other-worldly narrative, "written in timeless narratives" as DA says. It is very much time-bound. There is no "spiritual core", for example, to Genesis 5, such that we can dispense with the long, detailed

genealogies of how Enos lived ninety years and gave birth to Canaan, or how Jared died aged nine hundred and sixty two. This is real-world history, because the Saviour who was coming was to be born as a real flesh-and-blood man, with a real human ancestry going back to Adam. The Son of God came as a real person in the real world to redeem real people in the real world. Genesis has to be real history, precisely because contrary to secularism, the salvation which was coming was to be a real and historical one, not just a set of private ideas. The Saviour and his apostles, taught us to read Genesis as accurate history; but all questions of that kind are conveniently ignored by Alexander in order to arrive at the neat scientific truth / spiritual truth divide that he leaves us with.

In conclusion, then, we see that Alexander totally side-steps all questions of history. He sets up the neat dichotomy, "is Genesis modern science", answers negatively, and conveniently entirely ignores what creationists actually teach. Is this deliberately dishonest, or just ignorant? Either way, I again came away sad because the clever method of setting up the debate on your own terms whilst ignoring what your opponents actually say, and then displaying a lot of skill and cleverness in your answer, will probably be persuasive to many naive readers. But to anyone who thinks that a case is only established when you represent your opponent on the strongest possible terms, this part of the book can only be judged as very weak indeed.

Chapter 3: What Do We Mean By Evolution? Dating, DNA and Genes

After 22 pages intended to give an overview of the Christian idea of creation, we are now treated to 104 to give us an overview of the idea of evolution. Perhaps this is necessary because the intended readership of the book will be assumed to already know more about the former than the latter. On the other hand, it is an interesting reflection of a theme that runs throughout the book: DA is a very orthodox evolutionist, and very reluctant to tweek with anything that forms the present consensus in the mainstream scientific community; but as regards orthodox Christian theology, it has much less that is certain and can be tweeked and adapted quite at will.

This chapter, as the title suggests, introduces us to dating, DNA and genes; the next two chapters explain the topics of "natural selection and reproductive success" and "Speciation, fossils and the question of information", before a chapter addressing some objections ties the summary up.

I am a theologian and logician, not a biologist, so if DA has made any subtle errors in the finer points of explaining DNA and genes, I won't be detecting it any time soon. Much of this kind of material is uncontroversial, though DA doesn't bother to point that out. The ways in which DNA and genes can be observed to operate in the world today can be observed by everyone, and folded into a variety of different possible theories about the past. That outwardly quite different organisms have various similarities in their genes can be explained by many different and incompatible theories. Perhaps those organisms have a common ancestor and the similarities have been copied down the years and the divergent paths of Darwinian evolution. Perhaps those organisms have a common designer who intended his highest creature, man, to study and understand the living world, and so for that and other reasons used similar designs in many of his creatures. Perhaps it's just a massive coincidence. The point is that the observation itself is a neutral fact; how we decide which theory it points to, or maybe none of the above, has to be decided on other grounds.

This is a good point to mention, then, that at no point in his book does DA explain to his readers that scientific research takes place in terms of paradigms. There is a model, and research is done to explore that model, which is then confirmed, or adapted in minor or major ways, or even scrapped, or perhaps we just put the research on the shelf because it puzzles us too much and we don't know what to do with it. Only a miniscule number of research scientists genuinely make a new advance; the vast majority are involved in doing work that simply assumes the truth of a particular paradigm, or seeks to confirm it or possibly to tease it out a little bit. When it comes to comparing two competing paradigms (such as Darwinism or special creation), you can't just point out that your paradigm "explains stuff"; that is not evidence of superiority. Evidence of superiority comes when you show that your paradigm explains stuff better than the other one across a wide range of data. Alexander, though, despite a few critiques of modernist thought here and there, allows his reader to go away thinking that science is simply a giant consensus, slowly, objectively and relentlessly grinding its way from neutral assumptions to the discovery of all (natural) truth. That's classic Darwinist rhetoric; the simple reader must not be allowed to think in terms of controlling world-views or paradigms, because the suggestion that philosophy or personal

prejudice might play a part in scientists' work, or that they simply might be just barking up the whole wrong tree from the beginning in any particular area, would lead to evolution being given a more objective scrutiny than it could survive. Hence, our chapters introducing evolution simply describe whatever the present consensus is, and keep the whole matter of paradigms and competing models or world-views conveniently hidden.

It is instructive to notice just how thorough-going DA's debt to enlightenment thinking is in these chapters. Biblical truth and scientific truth are, in his mind, in effect two hermetically sealed sources of truth. Yes, the Christian scientist may pause during his work to praise the Creator for what wonderful things he has made; but Biblical truth is never allowed to set any boundaries or limits in his study - this would be a category mistake. Hence we have two self-contained chapters on creation, and now some on evolution, and these can stand quite independently of what's gone before. Simply put, DA swallows the enlightenment fallacy of a "neutral" science hook, line and sinker. There is not a word to show us any awareness of the Christian idea of theology as the "queen of the sciences", where the Word of God is the ultimate source of revelation and authority, by which every external idea must be scrutinised and have its limits defined.

Hence it is, then, that in the section arguing for a very large age for the creation, there is simply no discussion of what limits Scripture puts upon it - even whether it does. There is nothing on this in the whole book. This fits in with the way DA has been going - the Bible tells us spiritual truths, but science tells us ones about the physical world. We noted in the last chapter that the question of whether Scripture tells us *historical* truths is one that DA simply side-steps. Of course, enormously long ages are needed to fit in the evolutionary hypothesis, so DA piles up various lists of things that are really really old. It's another exercise in moving swiftly on conveniently omitting to discuss any of the difficulties. If there really was a global flood, then many of the assumptions used in these things are simply wrong. If you find a nearly full bucket in my bathroom under a dripping tap, you might measure the rate of dripping and then calculate how long it took to get so full - a few weeks. In fact I filled that bucket myself and then turned the tap off 5 minutes ago and it's got a little drip. By giving you a key to the past, I've shown you that you're going wrong if you just do some sums that assume that as things are now, so they have ever been. The word of God is our key to the past. If there was a world-wide flood, as it says, then we have to factor that into our calculations; we can't simply assume that present processes can unlock our past if we just wind the clock back and do the sums. DA, though, follows the secular model totally: only data from the physical present can control our interpretation of the past, and the Bible must be treated as if it either doesn't exist or says nothing on the matter. Being a professing evangelical, DA plumps for the latter: dating and the age of this or that is fixed by science, only by science, and the Bible is simply a book with nothing significant to say on matters of ancient history. We have here again the practical outworking of the "two books" fallacy (whether DA actually believes it or not): science teaches us about history and the physical world, the Bible teaches us spiritual values.

This chapter is preliminary. There's some material about encoding and non-encoding sections of our DNA. This is intended to pave the way for DA's proof of common ancestry. All that to come.

Chapter 4: What Do We Mean By Evolution? Natural Selection and Reproductive Success

In this middle chapter seeking to explain the theory of evolution, Dr. Alexander seeks to explain the heart of modern Darwinian theory. Having discussed a little about the dating and genetics, we now get to the key idea: the combination of the continuous production of diversity, filtered by natural selection, to produce the useful improvements necessary to fill all the ecological niches of life.

Alexander explains the concept well. Three known processes (not just mutations, but also sexual reproduction and gene flow) produce variety. This variety is then put through the reality test. Those that are beneficial (in the sense of leading to longer life (and hence more time to produce offspring) or some other reproductive advantage) "survive" by being passed on to successive generations; the others are weeded out. The picture we're meant to have is well-described by Richard Dawkins as the "blind watchmaker" - there's an ever-rolling conveyer belt of possible modifications, and at the end the no-good ones are dumped in history's bin. The good ones survive, and thus the process is pretty much guaranteed to produce continual development.

Nice Story, But...

Now, though, we have to apply our own set of "reality filters" to this idea. The first thing to flag up is that creationism has no quarrel with the idea of "descent with modification". It's a truism that nobody is a clone of either parent. There's nothing innate in creationism that is against the idea even of one generation being better adapted to its surroundings than the one before. It's perfectly possible, as a concept, to believe that the Creator endowed his creatures with capabilities latent in their genes that should only be activated or come to observable expression at a distant generation. In fact, creationists pretty much must believe this. If only a very limited number of animals survived the Biblical flood, then it has then to be believed that those animals had, within their gene-pool, sufficient potential to fill the earth again with all of its present variety.

Modification with descent, then, is not controversial. The big question is whether the modifications actually possible through this mechanism have limits or not. Put more simply - must a modified fish remain a fish, or can it eventually modify all the way to becoming a goat, as Darwinism teaches? Are the possibilities for change bounded, or unbounded? Strictly that's question that Dr. Alexander turns to in chapter 5. It's also to the point here, though, because in fact two of the mechanisms for generating variety that he describes do nothing of the kind - as concerns the kind of variety relevant to his purposes.

The Fifteen of Squares

On page 80, Dr. Alexander complains that evolution is sometimes erroneously represented as only involving one process - genetic mutations - that creates novelty. Indeed it is so represented, by friend and foe alike - because that's the way it is. In sexual reproduction, there's a recombining of the genes of the parents - but recombination is not the generation of novelty. When a hand of cards is returned to the dealer, he shuffles and recombines them in interesting new ways, introducing a new game. But whatever happens in that game, it's still the same 52 cards, and you'll never turn over your hand to discover you've received the fifteen of squares, or that it's actually going to be a game of "Snakes and Ladders". Recombination shuffles what's there - it doesn't create genuine novelty. Alexander makes the point I've made above - that there can be apparent novelty, because the recombination could bring genes to express themselves in ways that they hadn't been able to in the old combination. That, though, is irrelevant to the point. The novelty gets expressed for the first time here - but it was generated previously. A mechanism that expresses already-existing potential is not a mechanism that makes potential: we have to go elsewhere to find that: which leaves us with two.

Gene flow is the same story. The duplicating, rearranging, inserting, etcetera, of information is a distinct concept from the generation of novel information. The question that the Darwinist cannot answer (because Darwinism is wrong) is "where does the information actually come from?" There is no problem for a creationist in believing in not just three, but three hundred million, if necessary, biological mechanisms for the shuffling of information. If you took a print-out of this review to the local copy shop, you might find that their machine has double-printed a page, or added a blank page, or output the pages in the wrong order. What you'd be a bit shocked to find would be that page 42 was now a report on the Boston Marathon, or the second act of Hamlet.

Dr. Alexander glosses over that critical distinction, and it's a weakness that surfaces several times in the book. The genetic code is a code, and as such can be analysed by the mathematical tools used to analyse codes. It is information, and as such falls within the boundaries of information theory. Throughout the book, Alexander either pretends that information theory doesn't exist, or when he addresses it tries to argue that it shouldn't be allowed to apply to biology, or that a special version should be allowed for dealing with biology. In this chapter he takes the "behave as if it isn't there" approach and these issues are glossed over. From that angle, these parts of the chapter are simply an instance of the equivocation fallacy. There's no real distinction between the concepts of directionless change, change within a limit, and unlimited change. I can run round in a circle: it's change, but not getting me anywhere. I can train to run faster and faster - but never so fast that I run 100m in 3 seconds, or a marathon in a minute: the change has limits.

Can We Mutate Our Way There?

Mutations, then, are the only potential source of real improvement into the genome, with other mechanisms later perhaps allowing the changes it brings to actually be expressed. Can they do the job? Alexander of course thinks they can; there's no actual mathematics in the chapter or references to it to

establish the point. Again that's related to the Achilles heel - no application of information theory. If an organism has been adapted down the years (or rather, its ancestors were selected down the years) for survival, then that makes it a finely-tuned organism. It's a good match for its environment (or strictly, its parents were for theirs). What, then, is the likely effect of a random alteration to its genetic code? What are the statistics? Information theory teaches that random alterations to a finely-tuned code cannot improve it, with any likelihood that could be considered within the realms of possibility even given billions of years of attempts. The sums simply don't add up.

We all know intuitively this by experience. Printing errors when running-off essays do not produce new and brilliant analyses of the topic that the author never intended. Scratches on installer CDs for a computer program don't result in brilliant new features in the code. Dropping your cheap Chinese mobile in the washing up bowl won't make it behave like a top-of-the-range Nokia. Finely tuned codes, when altered, can never produce something useful, within the limits of reasonable mathematical possibility unless the possible age of the universe is stretched by obscenely large numbers which nobody (of whatever persuasion) has ever suggested. Monkeys on type-writers won't ever produce the works of Shakespeare; it can't be done. Dr. Alexander passes over all such questions, because his take is that Darwinism is true and therefore the mathematics must work out somehow. But if your favoured theory results in two plus two equalling seventeen thousand and twenty three, you're theory is false and that fact can't be changed: the laws of mathematics don't work like that. The problem for Darwinism is that it's caught between pincers. There must be a certain average number of mutations being produced from one generation to the next. That number has to be enormously high in order to generate, amongst all the randomness, all the useful changes to take us from single-cells to man in the small number of years available for it (a billion is not a big number in the context of the complexity of the human genome). But, if the number is not very very small, then the number of dangerous mutations would mean the organism would have no hope of survival. It's an unsolvable problem. Too few mutations means that not enough of the magically-right ones to generate the new complexity could come about. But if enough good mutations do take place in an organism, then because of the facts regarding tuned information, enough bad mutations will also have happened to be fatal.

It's telling that all Alexander's examples in the chapter are of the kind that creationists refute before breakfast. They're all of the "change within limits" kind. There are no genuine examples of true novelty in the sense of new useful capabilities through the addition of new information. There are moths of this colour or that colour, or bacteria resistant to this drug or not resistant to this drug. There are sub-sections of the population that die of malaria and some that don't because of sickle-cell anaemia. But nowhere are there fish that become reptiles, or dinosaurs that become birds. He does a good job of illustrating all the kinds of "evolution" that are not controversial - and has nothing to illustrate the kinds that are. In a book positively comparing full-blown evolution with creationism, it's a telling omission: after so many years of creationists making this criticism, if there were good answers and examples we'd have heard them by now.

More than Genes?

Another issue that Dr. Alexander glosses over, both here and in the rest of the book, is the theological implications of this scheme. Darwinism implies that every human ability is the result of survival advantage. Whatever you possess, coded somehow in your genes, must have survived because, well, it was helpful for survival. It was a help to your ancestors to mate more, and/or have healthier offspring. That's what the filter of natural selection is. This precise observation is often glossed over by all kinds of Darwinists, not just those with a theistic evolutionary axe to grind. It's not just that feature X is supposed to be somehow useful - it's got to be specifically useful for surviving.

Is that really true? No - it's a flat denial of the Bible's doctrine of man, as made in the image of God. The image of God, with all its attendant potentialities, is not simply something that arises through the struggle for limited resources. According to Scripture, it's a special endowment from God, given for us to use to glorify him. Art, music, culture - all these things are wonderful gifts. The Darwinist viewpoint, though, is that somehow they had some usefulness in our caveman past and allowed one Og to out-club Ug and so pass on his genes. Darwin himself, in his book *The Descent Of Man*, goes through case after case of human faculties, to try to make plausible some kind of explanation in this region. If you allow that, though, you have fundamentally denied the doctrine of man in the Bible, and the reasons assigned there for his uniqueness. The genius of the chess grandmaster, the budding Mozart infant prodigy, the literary

genius of the expert novel writer - these are not features that arose from the earth : they were handed down from heaven.

The Blind Watchmaker

It's a bit of a jolt on page 86, to read Dr. Alexander speak of this unending upwards development through natural selection having taken place "under the sovereignty of God". Cells-to-cellists evolution, as just described, is a blind algorithm. Supposing we could make the sums add up and it were possible, it is then inevitable. Given the unending production line of genetic change, and the continual selection of the useful changes, and given the earth environment, it's then inevitable that every ecological niche will be filled. That's what the algorithm does. That's Professor Dawkins point when he speaks of the "blind watchmaker". It doesn't need providential oversight - it's an algorithm and it does what it does. If it needed sovereign oversight, then it would be something else. Darwinism is a deistic scheme - the results are programmed by the initial conditions. Note that Darwin himself was a deist - a point rather lost on Dr. Alexander when (elsewhere in the book) he argues that Darwinism has no theological implications. The only other use of Scripture in the chapter is a rather bizarre use of the parable of the sower (Matthew 13) as an example of natural selection.

A Hostile World

Another major theological problem here is spotted when you look more closely at what's embedded in the idea of natural selection. It assumes the idea of a hostile environment. For there to be progress (in the evolutionary sense), the less-well-fitted organisms have to die out. Just because one offspring has in some way better able to reproduce is in itself not particularly significant - if his other brothers and sisters can reproduce too, then all of their genes will be passed on, not just his. The reason why his genes survive, in the Darwinian scenario, while theirs don't, is because of necessary competition. Resources are scarce; nature is red in tooth and claw; it's a dog-eat-dog world, and only the fit will survive. The world has to be hostile for Darwinian development scenarios to play out. If it's not, then all the genes survive, and there's no significant development. There's just endless shuffling, as a dog gains better genes and then loses them because he didn't need them: his neighbour didn't need to eat him.

That's a scenario that sits OK with the budding atheist - and it's realising the implications of that that played a part in paving the way for the horrific atheist regimes of the 20th century. (The introduction of competition brought evolution back in a meaningful way in Stalin's Russia and Hitler's Germany - where previously charity and compassion had been allowing the unfit to survive.) It's not a scenario, though, that can fit with a Biblical view of creation. Even if, like Alexander, you take the line that Genesis is totally theological and a-historical, yet you've got to then deal with the actual theology that's there. At a minimum, the world was a "very good" place, designed for man to live in a blissful paradise, without suffering, pain or death (these coming from sin). In Genesis, man's not in a dreadful battle for survival, a fierce competition to get the food and the girl before his brother does. Man lives in wonderful harmony with creation which is fruitful for his sake - because all is at peace under God's loving care. This isn't a question Alexander begins to face until much later in the book - and the aspect that the idea of development through natural selection inherently requires a hostile world is one he never addresses at all.

The Best Inference?

At the end of the chapter, Alexander makes an apposite statement that he never realises the implications of or gets round to applying. It is that the business of science is to make an inference to the most plausible explanation. Yes. But, how can an explanation be known as the most plausible one unless there's another theory that is shown to be less plausible? Throughout the book, Darwinism is simply described and asserted. How, though, would a creationist deal with the issues of this chapter? What does he say about natural selection and genetics? How does his interpretation of the data differ with the evolutionist one? What are his objections, and how would Alexander deal with them? Dunno. Alexander's aim is to persuade his reader there's only one game in town. If you think you hear the noise of another one over the other side, he'll simply shout louder about his one. It's only persuasive until you start to tune out the shouting and be a little more critical. Dr. Alexander is a good describer. He describes the Darwinian theory well. But he doesn't bother to allow real-life creationists to put their case, and answer their writings; he simply behaves as if they don't exist. *"The first to present his case seems right, till another comes forward and questions him"* - Proverbs 18:17.

Chapter 5: Speciation, fossils and the question of information

Chapter five is the third and final seeking to explain "What do we mean by evolution?". After that there is a chapter seeking to answer some objections; at 37 pages, it is also the longest chapter in the book.

Speciation

If you've been following this extended review, you'll know by now that Dr. Alexander is quite good at side-stepping difficult questions for the Darwinian position by the use of a carefully crafted word fallacy. His section on "speciation", extending for several pages, is another classic example.

The key question as regards Darwinism versus creationism when it comes to speciation is this: do evolutionary mechanisms have limited or unlimited potential? To sharpen it still more, are the processes which are active and observable in the natural world today able to generate the entire "tree of life" from a single common ancestor, or not? The creationist model is that God created several distinct kinds (Hebrew, "baramin"), in which the life-forms had the potential to diversify within certain limits. The Biblical text does not give us much specific information about the limits of these "kinds"; but there are some - for example, trees and birds belong to different kinds (Genesis 1:11-12, 20-21). There is variation, but within limits, and what we end up with is not a single genetic tree of life, but an orchard - several trees in which the descendents express the potential that was latent in the original ancestor individuals.

DA, though, decides to answer a conveniently different question, and gives an irrelevant answer which does not touch upon the actual creationist case, whilst, as before, giving the impression that presumably he must be talking about something relevant and probably refuting it. To what extent he's conscious that he sidesteps the issues or not, I don't know - he never refers to any creationist publication; beliefs contrary to Darwinism are always couched in terms of "many people think" or "some Christians believe". In fact Henry Morris gets a special guest mention in a later chapter, but that sudden freak appearance will be as good as it gets.

The question DA answers is this one: is speciation possible beyond the limits set by today's definition of a biological species? i.e., is it possible for new species to form under the specific definition of "species" in contemporary science? DA introduces this question in terms of the commonly used distinction between "microevolution" and "macroevolution", defining them in terms of variation within a species, or changes above the species level, then going on to define just what "species" means - it is defined in terms of reproductive compatibility. A species is a population where the individuals can interbreed with each other but not other organisms. This is clearly a *related* question to the real issue, but only a smaller part of it. If "macroevolution" as DA has defined is not possible, then this would imply the creationist position is right; but whilst being a sufficient condition, it is not a necessary one. In fact, no mainline creationist believes that the limits of the Genesis "kinds" coincide or are even close to being as restricted as the definition of "species" which DA gives. . Hence again we simply have the ritual disembowelling of another straw man, whilst hood-winking the uninformed reader into thinking that he's reading a refutation of something at least similar to creationism.

Having thus set up this uncontroversial non-question, over the next pages DA explains various ways in which speciation can occur in the animal and plant kingdoms, da de dum yawn, and concludes that the macro/micro-evolution distinction isn't as useful as it seems at first glance. Along similar lines, he also discusses other interesting ways in which modern biological findings are raising questions over our idea of what a "species" is. As with other parts of the book, that would all be OK and useful, were there somewhere else in the tome where he actually addresses the real question - but he doesn't.

One point of interest was to see a Bible verse actually thrown into the chapter. What we've seen before is that in practice DA believes that the world of the Bible and the world of science have no real overlap as far as the evolutionary history of the planet goes. In particular, the Bible does not set any real limits on what conclusions science is allowed to give - contrary to an authentic Christian worldview in which the Bible is the foundation and ultimate arbiter for all true knowledge. DA's verse in this chapter, though, doesn't contradict this position - it's thrown in as an aside. We're told this:

No one actually knows the exact number of species on earth. the number already classified is around 2 million. ... Adam was brought by God in Genesis 2:19-20 to name all the animals, but we have a long way to go in finally fulfilling that command!

DA has not very closely read Genesis 2:20, because it actually states that Adam *did* in fact do the task which God charged him with; *"And Adam gave names to all livestock, and to the birds of the air, and to every beast of the field; but for Adam there was not found an helper suitable for him."* DA's interpretation seems to be that this command was part of the "creation mandate" to govern man for all time - part of the ongoing task to explore and harness the wonders of God's creation. Note, though, that DA assumes that Genesis 2:19-20 actually means *species*, as defined in modern biology, in terms of reproductive isolation - hence the task is to catalogue millions of species, not just to give generic names to a much smaller number of larger groupings. This muddle is truly ironic given the stern warnings in previous chapters that we must not read Genesis in terms of modern biology.

In reading through the examples that DA gives, it's noticeable that in the examples of processes involved in the production of new species, there are no examples of changes which are genuinely productive. They are all neutral or degenerative. That is, it is in terms of some change which prevented reproduction where it had previously been possible, and led to the isolation of a particular subset of creatures. This is obviously inconsistent with the key Darwinian assertion of upward progress. This is related to the key question of information, which DA addresses later in the chapter.

Comparing paradigms

The major argument which Dr. Alexander relies upon as the most solid proof of Darwinism is from genetics. On page 119, he says that the importance of fossils to the case for proving evolution has been relativised in recent years, and that we are now able to reconstruct evolutionary history just from genetics.

In the event, though, the proof offered falls down once more because of the invalidity of the method he uses. Put simply, DA argues that Darwinism can give a coherent explanation of this or that, and so there it is. Again, we look in vain to find DA educating his readers as to the concept of competing paradigms, and showing that the Darwinian paradigm can give a more coherent explanation of certain phenomena than a competing one. No - it's just that Darwinism explains this bunch of stuff, therefore it must be true.

So, there's a carton of orange juice on my table. You know I visited the supermarket last week, and the theory that the carton came from that trip fits with this bit of data, therefore it's definitely true that that's where it came from. But, it's not - in fact the carton was brought by a guest who came for tea. Again, DA doesn't give us a word to explain how a creationist might explain the phenomena he describes; there's no comparison, simply the naked assertion that as his model gives a coherent explanation, therefore it's proved to be true. As the book goes on it becomes increasingly clear that DA is as much marshalling rhetorical tactics as he is actual science - don't give opposing views the oxygen of publicity, and perhaps your readers will simply believe your naked assertions instead because they don't realise there's another game in town.

So, DA brings out various arguments - from what is often called "junk DNA", and genetic similarities found in different species that Darwinism claims are related by common ancestry, and so on. "Junk DNA", however described, is basically an argument from ignorance; DA gives no proof that these bits of DNA have no function, he just argues from the fact that we don't know their function. He is good enough to concede that the "junk DNA" label has turned out to be unfortunate as functions are being increasingly found for parts of the genome previously so labelled. This is a "Darwin of the gaps" argument - as our knowledge increases, so the argument begins to vanish.

What is much more worthy of notice, though, is the implied theological, and not scientific, argument which underlines both of the arguments mentioned above. The rarely spoken assumption behind them is that "a Creator who made these things in a short time period wouldn't have done it this way". The argument being made is "these DNA similarities between different creatures are too much to be a

coincidence - if a Creator had done this without common ancestry he would be tricking us with misleading evidence: I think he wouldn't have done things this way, therefore he didn't."

Seeing as this is a theological argument and not one provable by empirical observation, it's equally capable of theological refutation. Genetic similarities can be explained through a common designer as well as being explained by common descent. If the Bible is true, then we expect the world to be discoverable - this was part of the basis for modern science. We believe that the universe operates by principles that human minds can investigate and describe, because we believe that the designer of the universe also designed human minds and did so with the desire that we should explore and subdue his creation, as the Genesis mandate states. As such, then, we might anticipate that there will be a great deal of similarity and re-use of similar principles and designs in different animals. What kind of headway could we make in exploration if each of the millions of species of animal was put together in a totally different way and required a whole new branch of science to investigate it?

Thus it's too easy and glib for DA simply to assert that genetic similarity is predicted by Darwinism and so Darwinism is proved. Genetic similarity is also predicted by creationism, which is what DA is trying to disprove. If, though, you never mention or explore the predictions of the system of thought you're trying to disprove, then you'll have to excuse reviewers like this one who don't think that you succeeded.

Fossils

DA's section on fossils is a bit thin; lots of dogmatic assertions (this is 35 million years old, that happened 1.2 billion years ago), but not much by way of meat in terms of arguments. More of a summary of evolutionary claims that arguments for them. Fair enough; I suppose from the fact of DA's specialism in genetics and biochemistry that he's going to major in those areas and minor in others. Tiktaalik is given the starring role as a great example of a transitional form.

Information

The sections in this chapter on the question of information were the most disappointing to me. Perhaps that is because of my background in mathematics I'm more "on the ball" here than when reading paragraphs about theories of fossilised fish. From whatever angle, though, DA's discussion of these questions is particularly poor.

The question of information does not have to be a painful one for a theistic evolutionist per se. The idea of common ancestry is not essentially incompatible with the ideas of complex, coded information and intentional design. It is a problem, though, for a believer in *Darwinian* evolution, and it's surely DA's thorough going acceptance of Darwinism specifically and not just common descent in general that makes it impossible for him to give these questions good answers.

The arguments that can be launched from information by a Christian are simple to understand. Information that is complex and finely tuned is a strong indication of a mind. We could say it more strongly; in our recorded experience, we have never known such information to come from anywhere else but a mind. Systems of inter-dependent components working together for a common goal are a signature of intelligence. That is our intuitive experience. The science of information theory looks to translate this intuitive experience into the language of science, and back it up with real research and intellectual rigour. Where this interacts with biology is in the fact that we now know what Darwin didn't - that human DNA and the biological systems for interpreting and using it (which are themselves also encoded in DNA) are the most complex and highly specified information systems known in the universe. They vastly exceed anything that human minds have, with all their millions of man-hours of research and labour, managed to produce. As such, they are an overwhelming testimony to a divine mind for its origin. Codes, coupled with systems for decoding and encoding and translating into physical results, are the work of intelligence. DNA is such a system on a scale that is orders of magnitude beyond what man's finest intelligence has concocted. DNA testifies to us of our true origin: in the mind and will of God.

None of that should be painful for a believer in common ancestry per se to accept. It's impossible, though,

for a Darwinist to accept it. Darwinism is at heart a mechanism which fundamentally denies teleology, i.e. the concepts of intentional design and purpose. It's an attempt to describe how one animal can give rise to another of a different type without there being a conscious intention on behalf of any agent that such a thing should happen. The external pressures and difficulties of survival alone account for the improvements at each stage - there is no inevitable final goal to be reached. In short, there is no need for a mind that designs and directs: the sheer redness in tooth and claw of nature brings it about. These contradictions are why many, such as myself, feel that to describe oneself both as a Darwinist and a theist is a logical contradiction, however sincere a person may be in affirming both.

DA starts his discussion on the question of information by admitting that mathematicians, engineers and computer scientists are often puzzled when they listen to biologists' (he means Darwinists') explanations of information. We agree there. DA's explanation for this phenomenon is that it comes from a misguided attempt to force the meaning of "information" from one field into another. This explanation is basically a concession that DA has no real idea what he's talking about, isn't going to talk about information in a meaningful way as defined by information theory, and is going to allow himself a free hand to redefine that area of study as it suits him. This won't do. Information theory is a universal theory; it applies to information as information, wherever it is found. It is independent of the mediums and mechanisms by which the information is stored or translated into some useful end product. To give a simple example, a telephone number has the same information content whether I store it on my mobile phone or memorise it - whether it's silicon, brain cells or paper that are recording the number, whether by 1s and 0s, neuron configurations, or patterns of ink upon papyrus, it makes no difference. The information content is the same. If DNA stores information, then it matters not one jot what other theories concerning DNA are floating around - information theory either applies to DNA, or information theory is itself in error. It cannot be correct when talking about other kinds of storage system, but not DNA. Hence, by this ad hoc explanation in which he attempts to tell the information theorists to get off his turf and allow him to write his own theory, DA betrays the fact that he doesn't know what he's talking about.

DA seeks to explain some ways by which new information can be generated in a genome, but these further give away his lack of understanding. DA never actually explains how new information arises, except to play with the definitions. He repeats some arguments about alleged Darwinian mechanisms, and then waves the wand and says "bingo - since we now have new capabilities in the organism that must mean there's more information!" But this is simply arguing in a circle and missing the point. Information theory poses a serious challenge to Darwinian orthodoxy - to simply argue that Darwinism alleges that this happens, and this would have to generate new information, therefore there's no problem, is to shove the problem under the carpet. You've got to show us the mechanisms and what they do to the information content at each stage. To just tell us the mechanisms again and insist that they are correct and so therefore must, is ducking the challenge.

DA points to gene duplications, and then says that the duplicated gene is under less selective pressure so can accumulate new mutations without danger to the organism. Fine, but what has this to do with an actual *mechanism* for the increase of information? That's the crucial question, but the one DA doesn't answer. It's all left to randomness - there will be lots of mutations, some will be useless, some will be good, and those good ones must have more information because that's why they're good. Randomness, though, is precisely what information theory tells us does *not* generate a reliable source of information. A tightly specified system is not likely to be improved, but ruined, by random alterations. Throw a cup of water over your computer to randomly alter some of its logic circuits to see what I mean. How likely is that procedure to result in an upgrade of your hardware to future technology, compare to the likelihood it'll mean you need to go and buy a new computer? The Darwinist insists that what happens in biology is a unique exception to these kinds of laws, but such a significant assertion needs significant supplies of proof, not mere hand-waving and complaining that computer scientists are bringing in their own ideas which should not be allowed to apply.

DA gives us a somewhat humorous example of his confusion beginning on page 114, when he explains how a gene duplication in mice is thought to have resulted in two genes with slightly different functions - and yet that biologists found that the original gene could be made to cover both functions, only with less room for manoeuvre. So, says DA, the duplication didn't lead to an increase in information in one sense,

but did in another - and thus DA seeks to equate information content with survival capacity. This may be missed by the layman coming to the whole area for the first time, but to anyone else, it just reads like a confused man trying to answer a question that has stumped him and he doesn't really know how to begin with. In a similarly inept way we read on page 117 that sexual reproduction produces new information because the offspring are different to their parents because their genes are combined in new ways - and DA concludes "The process of recombination... is just another way of introducing variation into the genome." This confusion between new information and mere shuffling of existing information is symptomatic of the whole section. DA does not seem to know what he means by information and hence never defines it - and then proceeds to lead the reader on a tour of confusion as one implicit definition gives way to another in a magnificent but ultimately vacuous display of Darwinian hand-waving.

Chapter 6: Objections to Evolution

After the three chapters explaining what is meant by "evolution", DA gives us a chapter in which he answers a few objections. If you could voice seven questions concerning evolution, what would they be? Here are the seven that DA treats:

- "Evolution is a chance process and this is incompatible with the God of the Bible bringing about his purposeful plan of creation."
- "The theory of evolution is not truly scientific because it does not involve repeatable experiments in the laboratory."
- "Evolution runs counter to the second law of thermodynamics."
- "Perhaps God makes things look old, although in reality they are much younger, in order to test our faith."
- "What use is half an eye?"
- "Surely if evolution were true, God would have simply told us so in his Word so that we don't need to have all this discussion?"
- "Perhaps God made the original kinds by special acts of creation which then underwent rapid evolution to generate the species diversity that we see today."

Why these seven? DA gives us two things here. Firstly, he recognises that the biggest theological concerns expressed usually concern Adam and Eve, death and the Fall, and there are going to be separate chapters on these topics. Under the last objection, this little phrase tells us what to expect then - "an idyllic non-violent pre-Fall world, as young earth creationists imagine it to have been" - because DA certainly doesn't imagine such a thing. But that's in later chapters. The main selection criteria (p131) is that these objections are ones that DA has come across personally as he's given lectures, or that he's himself "read in books critical of evolution."

At this point our hopes are raised that DA is actually going to interact with something an actual critic of Darwinism has said, or at least give us some references so that we can cross-reference what he's critiquing. But, it's not to be. The nearest we get is in the last objection, when DA mentions the name of Henry Morris and something he's supposed to have believed... but alas, without a reference, not even to the name of a book, much less the page. Having read the whole of DA's book, it seems to me that the most likely explanation for his refusal to even provide the most basic documentation or interaction with anything he says that "the other side" believe is that it's part of his rhetorical strategy. Darwinism is a fiercely controversial issue, but DA's overall aim is to paint it as utterly uncontroversial, fixed and settled, and to imply that those who question it are beneath his intellectual contempt as a bona fide scientist. To actually mention their names or indicate that he's really read their works would be like confessing to having waded through dog poo, and would spoil the impression that individuals with brains float several leagues above such unworthy activities.

It's a bit ironic, then, given this kind of methodology, to find that DA begins the chapter with a two-page general lecture on the proper scientific method. Because what we're then given in terms of the particular arguments answering particular questions, is anything but scientific. It's really a bit rich to give us two pages talking about the proper sifting of evidence and intellectual inquiry with integrity to then have it followed up with some supposed answers to objections that steadfastly refuse to actually interact in any meaningful way with any real live creationists (boo, hiss). The burden of the first two pages is to repeat a talking point we're more used to hearing from the atheists - science is a rational, free inquiry, and anyone

can make any point they want as long as the back it up with good research, and then if they do that and if it stands up to scrutiny, it'll get published in the journals and be accepted. There's no bias, no philosophical prejudice that stops anyone doing anything - and in fact, if you had any facts that did call into question evolution, the science journals would make you an overnight hero, because everyone loves it when long-cherished shibboleths get challenged and overturned.

This drivellous nonsense about the unbiased and objective nature of scientists' work is somewhat ironic coming only so few pages after clear warnings about the dangers of Christians uncritically swallowing an Enlightenment way of looking at the world. Mr. Kettle, the pot is on line one and would like to address you with some remarks about your colour? Puh-lease! The burden of these opening few pages is really to make a catch-all argument: it doesn't matter what objections you have to evolution, because you don't wear a white coat like I do, and therefore are not sufficiently expert enough to have anything worthwhile to say. But this Enlightenment sell-out won't do. Darwinism involves two parts of philosophy to every one part of biology, and theology is still the queen of the sciences which gets to tell even men in white coats what they are and aren't allowed to believe. God's word claims the authority to test every theory, especially speculative reconstructions of ancient history, and not even the peer-reviewers of *Nature* or *Science* get exempted from that. So, a big fat raspberry to this unworthy attempt (the like of which we expect to come from atheistic rather than Christian writers), to exempt such a far-reaching theory from its proper scrutiny.

So, what of the posited objections and their answers themselves?

1. "Evolution is a chance process and this is incompatible with the God of the Bible bringing about his purposeful plan of creation."

There are some bits I like about the answer offered here, and some bits I don't. I do like some clarifications about the idea of chance in general. I don't like the way that the issue regarding evolution is side-stepped with yet another word game.

Christians do need to think through their ideas about "chance". I hear phrases like "good luck" and "I was lucky" tripping readily off the lips of believers, yet I know they don't really believe in the idea of luck. They mean "God be with you" or "I was blessed", or somesuch. There is no luck, because a sovereign God oversees the casting of the lot, the falling of a sparrow to the ground, and so on. If people and events are predestined (which they are, e.g. Proverbs 21:1, Romans 9:1, Isaiah 44:28ff, Daniel 4:34-35), then that means that God has overseen and guided things at the most minute of levels. Alexander points out that even in the event of fertilisation, it was millions to one that the particular sperm that made you, you should be the one - and yet we confess that it happened exactly according to the will of God. So far, so good.

The problem with DA's answer, though, is that he then avoids sharpening the objection a little to work within this framework. The fundamental problem is that the Darwinian theory leaves no place for the idea of final purpose. Random mutations and natural selection work together at each stage, but without any knowledge of the end goal. There is no inevitability to the rise of man or the world as we know it. For the theistic evolutionist to say, "Ah, but God had that in mind and so guided it in that direction" is a logical contradiction - Darwinism, if guided according to an overall plan, cannot then be Darwinism. Either natural selection selects merely for survival potential, or it selects according to the climax of God's will for man with his immense intelligence and abilities far beyond what is necessary for survival. If the process was divinely superintended, then it was not a Darwinian process at all, because the lack of superintendence is the essence of the theory - the selfish genes just do what's needed for their survival. What the theistic evolutionist is basically left doing is just making the empty assertion that, well, it was a nice happy event that that turned out to be exactly what was needed anyway to bring God's plan about.

Dr. Alexander's theory could explain how a deistic-type God could have created through a Darwinian process; but the God of deism is not the God of the Bible. The Bible's creation account is of a God who supernaturally intervened - an immediate event, not a multi-age process. That's why Richard Dawkins is willing to concede that a serious case can be made for a God of the type conceived in deism. Some Christian commentators seem to think this indicates a softening of Dawkins' atheism in his old age. Not so. Deism posits a God whose influence is of no practical effect - it makes no difference whether the Deistic God did something, or if nature had inherent powers to work out its own way according to immutable laws; the outcome is the same. No atheist is worried about such a "God" - one whose existence

has no cash value in the real world. That, though, is the kind of God that Dr. Alexander leaves us with.

As DA develops his answer, it goes off the rails. We meet again a line of reasoning that he uses rather frequently - divide and conquer. Make some subtle distinctions, blow some smoke, and do a runner before it clears. Now, don't get me wrong. The making of careful distinctions is the very essence of proper argument and logical inquiry. My problem is that DA doesn't use this tool - he abuses it. The answer to this objection is a case in point. DA proceeds to clarify that there are three things that we might mean by "chance", so we must be clear. OK. What are those three things? Firstly, events that are predictable in principle if not in practice. Secondly, events such as quantum events which are not predictable even in principle. Thirdly, "metaphysical chance" - events without any ultimate metaphysical cause. This third one, says DA, is the one whose existence, were it real, would concern Christians. However, there's nothing in the Darwinian theory that would imply metaphysical chance, so all is well.

What, though, is actually the difference between the second and third of those meanings? It's not a settled matter amongst physicists that quantum events are actually inherently incomputable. Is DA actually suggesting that not even God can know when an atom will undergo nuclear decay? By saying that some events are not predictable even in principle, does he mean to include God too amongst those unable to predict them? This is now the horns of a dilemma. If he does, then aside from being outside of theistic orthodoxy, then this makes this meaning the same as the third - an event of metaphysical chance which is not controlled by any agent or other cause. If, though, God can predict such events, then this merges the meaning into the third: it is in fact an event predictable in principle after all: it's just that our minds aren't big enough to do the predicting like God's is.

DA never explains what an event of genuine "metaphysical chance" would look like, or how we'd know we'd come across one. He simply asserts, ipso facto, that Darwinism doesn't include any such events, so there's nothing to be worried about in there. We are told that it does include "meaning two" events, but we are simply told that this has no implications: we're not told why not. Actually I think if even God cannot predict the effects of radiation on DNA (because they're inherently, according to DA, unpredictable), leading to mutations and evolutionary development, then we do have a serious problem; but DA never considers this. We're simply assured that there are no "meaning three" events, so we shouldn't worry - but not informed how we know there aren't any such events, even if we knew what one would look like to begin with.

So, the distinction which DA brings in to answer this objection does not ultimately clarify, it obfuscates. The distinction made is not well-defined, and not explained - but some hands are waved and we're told all is OK.

An objection DA might have put, but didn't, is to point out that evolution is a multi-million year process in which imperfection gradually improves (but never reaches a state of perfection); whereas Biblical creation was an event in immediate response to the Word of God, such that all that was made was "very good", but then fell. Evolution is a slow rise from chaos; Biblical creation is a complete event that is then spoiled by sin. Such, though, is the luxury of the author who chooses his own objections and never quotes from any literature from his real-life opponents - you can pick and choose what things to answer and if your reader is new enough to the subject area, he'll not know you've sold him a dud.

2. "The theory of evolution is not truly scientific because it does not involve repeatable experiments in the laboratory."

This objection seems to be aiming to make the distinction that creationists often make, between "operational" and "origins" science. One is based upon repeatable observations, whereas the other is a degree of magnitude more speculative, being based upon inferences about unique events. The world only began once, and we can't run back the tape; science can only observe the present and try to piece together the bits. Origins science by its nature must be much more humble and tentative, much to the chagrin of atheist apologists who'd love to assert that they *know* we're just a cosmic accident.

A truly Christian scientist trying to reconstruct the past has a great advantage. He believes that God has spoken many words about the past. These words are infallible and without error, and recorded for us in Scripture. By studying God's word, we can gain a much better interpretation of God's world. True, the Bible's principle subject is to reveal the glory of Christ and draw a chosen people to salvation in him; but

that Christ and that salvation are not timeless, a-historical entities, but have come in flesh and blood. Thus the Bible contains a great deal of history, as God has unfolded his primeval promises until the coming of his Son and caused it all to be recorded so that we might believe. The Christian origins scientist can thus use this infallible word as a framework in which all the valid activity of investigation, speculation and so on can take place.

Unfortunately you won't get any idea of the above from DA's answer to this objection. His is simply to assert that whilst, yes, scientists investigating the past are building a case, yet they do it very carefully, according to accepted rules of evidence, and thus its conclusions can after all be treated as certain. With no sense of irony, he compares this to the work of the legal system, with its forensic experts, judges, lawyers and court cases. Here I wanted to say "precisely", because even with all that, yet horrendous miscarriages of justice occur and occur continually - because man in his fallenness is not as objective, clever or rational as he flatters himself to be, and the nature of original sin is that no matter how many layers of procedure, counter-balances and checks you build in, that's how it will always be apart from the grace of God intervening. Another feature of DA's answer has been commented on before - the refusal to explain that science works in terms of *paradigms*, and contrary evidence is often explained away or just put on the shelf; in DA's explanation, the whole Darwinian community would drop its theory at the first instant if you produced a single fact that contradicted it. All together now, in our best Jeremy Paxman voices... "oh come on, pull the other one!"

3. Evolution runs counter to the second law of thermodynamics

Here DA gives a short and not particular relevant answer. That was easy for him to do, because he doesn't state the objection in a strong or accurate form, so there's not much refuting needing to be done. He doesn't *answer* the question in terms of an increase in organised complexity. The impression given in the answer is that simply providing a large amount of heat (from the sun, which is gradually winding down) will be enough to account for the "winding up" of the earth. But, since when did just naked heat bring about organisation, information and complexity? DA's answer does nothing more than shoot down a straw man.

4. Perhaps God makes things look old, although in reality they are much younger, in order to test our faith?

Whereas a good question, from the second law of thermodynamics, got just one page, this silly objection gets three - three pages which I think may be the most tedious and pointless in the book. DA goes to town to patronise and re-educate the simple and naive creationist who might believe such things as this, making God a liar - though it's not a viewpoint you'll find expressed by any mainstream creationist ministry or speaker. Such is the author's luxury when he grants himself liberty to choose his own objections without reference to the actual literature of the strongest representatives of the opposing position.

There is a real question that could have been answered here. On the day Adam was created, how old was he? And how about Eve? By the Bible's testimony, they were created as adults. Eve was made from Adam's rib and brought to him as a mature woman. The anthropologist examining them would have declared them to have been alive for several years - but he would have been wrong, because his underlying assumptions of gradual development instead of instantaneous creation were wrong. The real question here is over the mere assumption of gradualism - that we can wind back the clock on today's world as far as we like, with no dramatic interventions or catastrophic events to worry about. That real question, though, is overlooked in favour of an amusing tale about Philip Gosse and his *Omphalus*. DA reminds us that fake histories would make God a liar. The real point is, though, that God has given us his Word so we know how to interpret the history - but DA doesn't interpret creation history using God's word; he gives that whole task to Enlightenment-mode science, and then tries to harmonise what he finds in God's word with Darwinism after the event.

5. What use is half an eye?

This bit is more technical. I found it irrelevant, because DA misses the point and spends some pages

telling us about already formed systems, though limited ones, rather than telling us what use half a system would actually be!

One interesting bit was where he contradicts the approach to Darwinism, chance and providence he takes elsewhere in the book. He tells us that the human optical system is sub-optimal because there is a blind spot due to the optic nerve having to cross the retina to get to the brain - a defect the octopus does not have. He then remarks, "This provides a good illustration of the various ways in which our organs reflect their own sometimes idiosyncratic evolutionary histories." This idea of defective design due to idiosyncratic history, though, cannot be made compatible with his earlier assertions (e.g. in the answer to the first objection) that Darwinism is not a random process but perfectly superintended by God at every point to bring about the well-formed creation he desired. Either the human eye is an idiosyncratic hodge-podge limited by its own evolutionary history, or is what a perfectly wise designer intended it to be. You can't posit one of those ideas when the objection at hand makes it convenient to do so and the other when it suits you on another occasion.

6. "Surely if evolution were true, God would have told us in his Word so that we don't need to have all this discussion?"

Three-fold answer here, and a dud on all accounts:

a) The Bible is about spiritual matters such as salvation, not about the natural world. Ugh. That dichotomy is an Enlightenment dualism that is unbiblical.

b) God, like a wise parent, does not just give us all we need to know on a plate - he allows us to explore and find the truth. Humph. This answer has a load of false assumptions, such as: that whether creation is a long, upward process full of struggle or death or whether it was a supernatural event perfect at completion which then fell, is a distinction with no theological consequence and so the Bible doesn't need to inform us. Another: that telling us that creation was through a multi-billion year process would somehow be "telling us all we need to know on a plate". Hardly. That one sentence doesn't give you an iota of knowledge about genes, DNA, and so on.

c) That if the Bible were to tell us about evolution, it would then be an impractically long book. Balderdash. The Bible could say something to indicate that the universe is billions of years old, or was formed through slow and gradual processes, in just a few words. When we're debating creation versus evolution, we're debating two broad frameworks with considerably flexibility on squillions of biological details which could be accommodated by either system. This answer is exceptionally weak.

7. "Perhaps God made the original kinds by special acts of creation which then underwent rapid evolution to generate the species diversity that we see today."

The answer to this objection is a bit special, because DA actually condescends to name an actual creationist, albeit a dead one (Henry Morris). But it's not accompanied by any references to his works or quotes so that you can check out if he's accurately represented or not... I think DA's intention throughout the book is to imply that doubting Darwinism is beneath his intellectual contempt, and he doesn't demean himself by actually touching any of their works: so neither should you!

DA's ridiculous answer to this objection is that it amounts to "throwing out the whole of current science", because if you reject speculative evolutionary dating scenarios then, well, those scenarios are based upon irrefutable scientific principles which if you were consistent you should reject everywhere else too. i.e. It's a thin end of the wedge - reject it here, you should for consistency reject it everywhere, so let's say that that's effectively what you do do!

By this kind of reasoning, I should set DA a maths test, and if he gets one single question wrong then I'll give him 0% on the entire test because maths is after all a coherent system - and if you mistakenly get a sum wrong in one place then, well, that mistake if consistently applied everywhere else would falsify the rest of mathematics too! Great stuff. But in terms of logic, this argument is pants.

The other part of the answer is that there simply isn't enough time for rapid enough speciation to occur. I find this answer also incredible, because the objection itself doesn't state just *how many* different specimens of each created kind there were, or any figure for how much genetic diversity was present in their original state. It just states that there were several original created kinds, rather than just one common ancestor for the whole family of life. How many species there were within those kinds and how long would then be needed for further diversification to today's levels is not stated in the objection, so the answer that there's "not enough" needs to be argued with some numbers, not just boldly asserted.

Chapter 7: What about Genesis?

This chapter will make the discerning reader want to take a step back. There are even larger issues raised by this chapter and its role within the book than the subject of the book itself. The larger issues point to an ongoing "downgrade" in the world of evangelical theology which is part of the reason why much of the evangelical world is willing to come to an easy compromise with Darwinian thought.

We have now reached chapter 7, and Dr. Alexander has set out what he claims are proven and certain facts about the history of the world, its age, and the manner in which life developed. After settling all those issues, we now come to chapter 7, to ask - what does the word of God have to say about these things? Perhaps sensing that someone reading the book might have an uncomfortable feeling about the orthodoxy of his methodology, DA begins with a page of disclaimers to protest his submission to the Word of God as his final authority. He doth protest too much. Authentically evangelical methodology means that the Scriptures come first, and set the parameters of the debate. We do not ask fallen men for their best conclusions from their own investigations first, and then see whether we can harmonise it with Scripture afterwards - which is just what DA does, despite the protest that he wouldn't dream of such a thing.

DA's general approach to the early chapters of Genesis is to set up a false dichotomy (which is never formally stated, but is continually implied) between the historical reality of the Genesis account, and the theological truths which that history teaches. A first necessity is to ask what kind of literature Genesis is. Most of the ink is, as in a previous chapter, spent on refuting the suggestion that nobody makes - that Genesis is to be treated like a modern scientific treatise. But, in amongst this, we do get one - yes, a whole one and not just a half - sentence to discuss the idea of whether Genesis records not modern science but *accurate historical narrative* (whether with or without poetic elements in the presentation). Here it is

It is describing creative events that occurred before anyone was around to describe them, so it cannot be history in any normal use of that term.

And that's it. What DA means by "normal use" of the term "history", we are not told. Whether God himself, inspiring Moses, might be an even better historian than the normal human ones who weren't around and therefore whether we don't need to worry about their absence, doesn't seem to be worth discussing. Nope - if it happened before any men were here, then even if God himself records it it just cannot count as "history" in a meaningful way and there's nothing left even worth discussing. This kind of "clever" word-game, by which DA entirely side-steps the central and relevant issues in order to swiftly proceed on to some display of intelligence on some other side-issue is what makes this book a deeply frustrating one for anyone looking for an informed critique of young earth creationism.

Another such gem of schoolboy logic is the old chestnut that as the sun and moon weren't created until the fourth day, therefore the days can't be of the 24-hour kind because there was nothing there to mark them. This absurd argument wrongly assumes that the passing of time and the marking of the passing of time are the same thing. But does not even an infant know that time has passed long before mum or dad tells them what it is or how to count it?

There are several other such glaring logical howlers in the chapter, and more besides with historical misrepresentations, and hand-waving-smoke-blowing-strawman-destroying of possible objections, but I won't bore you with them. Such things can easily be detected by a critical reader who goes off to any of the big creationist websites to search for discussion of the common arguments. The big issue raised by the

chapter is that of principles of interpretation and the place of the Word of God in forming our theology and world-view. It's not enough to say that you abide by the Bible's authority. DA seeks to harmonise Genesis with evolution, but the Bible is not just one book alongside others; it must rule them all, and that in evident practice and not just in theory and disclaimer. DA makes a continual false dichotomy, urging us to not focus on Genesis' historical details and then to miss their theological import for us. Fine, but DA makes the opposite error; he divorces the two, aiming to give us the theological fruits but without the real-world, time-and-space events that actually give rise to them. This is trying to eat your cake without having ever had it to begin with.

Chapter 8: Evolutionary Creationism

We're now in the middle of the book, and having done all the spade work DA now summarises his main idea, which he calls "evolutionary creationism", but which is normally called "theistic evolution", i.e., the Darwinian process is God's chosen method for the creation of the world. After this chapter DA will go on to look at some particular areas of interest or difficulty in more detail, in particular how this thesis deals with various theological questions that arise.

DA first of all sets himself the task of clearing the ground by explaining that evolution need not carry any atheistic overtones, and to parade a list of names of those who from Darwin's day downwards (including the man himself) either did not believe evolution had to imply atheism, or who ardently advocated both evolution and Christianity. Concerning the latter, not all the names were familiar to me, but DA was very sloppy in handling two who were. Henry Drummond, despite his involvement in Moody's campaigns, was not as DA describes him an evangelical, but an outright down-grader. DA also uncritically quotes Benjamin Warfield's words describing himself as a "Darwinian of the purest water", with no hint that he is aware that Warfield spoke those words at the beginning of his theological career as a 17-year old freshman (though granted, somewhat above the usual grade of such - he had memorised the Westminster Shorter Catechism by the age of 6!), and that in later years he developed a number of criticisms of Darwin and was not unambiguous in his support of evolutionary theory - certainly he could never have written a book like DA's!

The former point though is more important - it's granted that Darwinism has been a massively successful theory in terms of gaining adherents including legions ready to proclaim their belief that it can be harmonised with Christianity, evangelicalism, etcetera. DA's basic approach to the question of Darwinism's implications is a naive dualism. Scientific theories have no inherent ideological implications; all those are later encrustations welded on by philosophers. Scientists and philosophers work in different spheres, and scientists just go where the evidence leads, leaving it to others to do what they will with their findings. It's amazing to believe that anyone can believe that kind of nonsense in these post-modern days, and I find it hard to believe DA can really believe what he's penning when he writes along those lines. Later on, DA gives some good explanations of how various ideologues used Darwinism to support their various theories (in such fields as economics, Marxism and medicine (eugenics)), but he never gets close to penetrating the heart of why they did so. The closest is when he remarks that some of what happened in the world of eugenics had to do with "the aspirations of nineteenth century educated Victorian gentlemen to create the world in their own image" (p 179). A more incisive insight would have been to observe that all these competitive and individualist theories hung together, *including evolution*, and that Darwin's theory, far from being a neutral insight into scientific reality, was in many respects simply this kind of 19th century educated Victorian gentleman seeking to form a theory of biology that fitted his views on the world.

DA notes that Darwin was a deist (in the part of the chapter where he's arguing that Darwinism doesn't have to imply atheism), and in another part of the chapter gives a short denial that his view of creation is basically deistic, but that's the closest he gets to actually examining the question of *what* form of theism evolution implies - that question has already been side-stepped into irrelevance by the conveniently thesis that scientific theories are ideology-free zones. But even Professor Dawkins is ready to concede the compatibility of Darwinism with theism - *provided that the brand of theism involved is deism*. Darwin's deism is not a coincidence, and his biological theory was not a neutral ejaculation of an unbiased mind. Darwinism is essentially the theory that the laws of nature (however those are conceived of in terms of

their relationship to God) make the rise of more complex life forms from simpler ones inevitable - a view well summarised in a Darwin quote DA approvingly supplies:

"There is a grandeur in this view of life, with its several powers, having been originally breathed by the Creator into a few forms or into one; and that, whilst this planet has gone cycling on according to the fixed law of gravity, from so simple a beginning endless forms most beautiful and most wonderful have been, and are being, evolved."

As long as certain rules are followed, complex life is inevitable by small and successive stages. That view of "creation" may be compatible with *theism*, but this point is not under dispute and so DA is offering us red herrings again. The real question at the heart of the disagreement between creationists and theistic evolutionists is, is Darwinism compatible with *Biblical* theism, i.e. is it compatible with essentially *Christian* theism? DA defends the legitimacy of believing in both God and Darwin - fine. But what about the *Biblical* God and Darwin? This is a question that DA is ill-equipped to get to grips with because of his starting point - which is to insist a priori that the Bible just tells us naked theology, science tells us about the physical world, and our job is just to find a nice harmony for the two. DA's answer to the charge that theistic evolution is basically deism is to insist that his theory insists on God's *immanence* in all the processes in creation, whereas deism is a theory of an absent God who merely set the rules and started the machine going but then takes a leave of absence. But this difference is entirely theoretical - it has no "cash value" as regards anything that ever happens in the physical world. Perhaps these physical events happen by the inevitable working out of natural laws; perhaps they happen because God is immanent in creation and working things according to a perfect order and harmony - but that's an entirely theological question totally unrelated to science or history. The point is that "evolutionary creationism" is *functionally* the same as deism, whatever it is philosophically - and functional deism is not Christian theism.

DA writes that it is ironic that young earth creationists agree with Dawkins that evolution is inherently atheistic. This is not ironic; it is simply true. He then goes on to blame them of "playing right into Dawkins' hands" by "confusing theology with science" and "setting up a false antithesis". This reflects DA's dualism - Genesis is theology, Darwinism is science, and in principle there's no reason why the two should ever have a problem. The problem is, though, that Genesis makes historical claims and so does Darwinism - it's no "confusion" to compare the two and observe that they differ; the confusion comes in an approach which conveniently side-steps the question at each turn.

Side-stepping is what DA does when he comes to address the issue of "naturalism" and whether it's at heart an anti-Christian theology. As seen many times now in the book, the question is neatly dealt with by a clever re-definition of the issue that is then inevitably easy to deal with. DA re-defines "naturalism" to mean "scientific language which does not mention God", and then proceeds to explain the reasons why Christian scientists don't stuff their papers with God-language (because God is everywhere and always present in creation, not just at some parts - we don't want to invoke a false "God of the gaps"). Neat, but useless. The problem with naturalism was never that it didn't include enough God-talk. The problem is the removal of the necessity of a mind - the philosophical decision to rule the questions of intentionality and design out of court, not on the basis of scientific evidence or necessity, but for ideological reasons. Darwinism, viewed from this angle, is simply the accommodation of biology to the philosophy of naturalism. It's not the absence of "God-speak" that causes Biblical theists issues with it - it's the absence of any necessity for a mind or purpose in the process. That's why Charles Hodge, a predecessor of B B Warfield at Princeton Seminary who DA didn't mention in his survey of responses to Darwinism, concluded his book "What is Darwinism?" with the conclusion "What is Darwinism? It is atheism."

Chapter 9: Who were Adam and Eve? - The background

As I read Dr. Alexander's book, my main fear ironically isn't that it'll persuade Christians to embrace Darwinism. What this book will actually do to Christians who really take it to heart is much worse. The worse thing is that it might lead them into a much more far-reaching theological downgrade, through the methods of Bible interpretation that Dr. Alexander uses. As with many "bad books", the badness isn't ultimately in the questionable and obviously controversial conclusions (though it is). It's in the questionable methods of Bible interpretation used to reach them; methods which the author doesn't tell

you are questionable or controversial, but simply presents as if they were quite normal and the kind of thing we should all do without hesitation.

The chapter starts, as a previous one did, with a somewhat limited disclaimer. DA protests that we must start with the biblical text if we are to ask about Adam and Eve, not to start with evolution and then try to retro-fit it. So far, so good, but it'll soon become apparent that there's going to be a galactic mile of wiggle room such that the end result is happily (for DA) the same as if he'd done the latter. He proceeds to state that we should "listen to what the Bible has to say and then see whether there are any interesting resonances with the evolutionary account." No. That statement is a classic statement of the "two books" approach DA consistently follows: the Bible is the book of theological meaning, science (and eventually Darwinism) is the book of scientific truth, and each must be listened to and obeyed. This is not evangelical hermeneutics. The authentic Christian approach to the Bible is to give it an unrivalled place of supreme authority and absolute truth, so that it dictates the parameters which any other supposed sources of truth must adhere to. The Bible is certain and non-negotiable; other sources of truth are uncertain, must fit within the parameters of Scripture and be believed with appropriate tentativeness.

To Dr. Alexander, Genesis is not only primarily theological in intent, but basically exclusively so, and so he tells us that as he reads it he will approach it looking for theological and figurative aspects (page 191). This is putting the cart before the horse. The fruits of the theological instruction arise from the historical reality of what is described. To change analogy, DA wants to have the fruits of the tree after he has plucked up the roots. That's not evangelical theology; it's classical liberalism. Liberal theologians decided to take the historical narratives of the Bible, strip them of their roots in the real world of time and space, and keep the results for their ethical teaching. The liberals concentrated most of their fire-power on the gospels and particularly the miracles of Jesus in this because for them the mythological status of Genesis was already beyond question. They were at least consistent in treating the gospels in the same way as Genesis. DA's hermeneutic needs to be seen for what it is - exactly the same de-historicising hermeneutic. Should it be acceptable for evangelicals to do to Genesis, the Bible's foundational book, what we absolutely reprobate and call heretical when we see others doing it to other historical narratives in the Bible?

The rotten fruits of DA's down-grading approach to Scripture become clear as the chapter proceeds. It's a chapter of two parts (and only begins to discuss the question of Adam and Eve - the next chapter continues). The first half looks at what the Bible says; the second half examines the evolutionary account. The first half is full of uncertainty and doubt. This passage is difficult. This portion admits of many interpretations. The commentaries suggest many possibilities here. It is not certain what this means. We cannot base any firm conclusions on this, and so on and so forth. Then we get to the second half of the chapter to learn what contemporary evolutionary biologists says about man's origins, and it's a totally different story. Here are results about which we can be as certain as about anything. This is an assured and definite truth. There is no real doubt about this to anyone in the field, etcetera and etcetera. It's as if I'd wandered into a gathering of the village atheists - the "religious" source of truth is by nature uncertain, doubtful, speculative... but here's science, which tells us results which are guaranteed in their infallibility because they are derived from the fail-safe scientific method, praise be to Richard Dawkins, Hallelu-Hitchens and Amen! But please, really... if DA is really an evangelical by consistent practice and not just in profession, then which of the two, contemporary science and Scripture, should we keep being told is infallible and certain, and which of the two should he keep emphasising is tentative and unsure?

Why is humanity's descent from the apes so certain? DA is consistent in relying on a single argument that he has outlined earlier in the book, though here he goes into more detail (and the man's certainly very gifted in explaining unfamiliar scientific concepts, provided you at least have some background). It's the argument that the human genome is full of what are basically relics from the past - gene sequences that are no longer active, or have been corrupted in some way. His argument is then theological - this *really looks* like common descent, and therefore it must be, because otherwise God would be playing games with us by deceiving us. As before, though, DA doesn't compare his scenario to the alternative creationist paradigm, but simply asserts that the particular account he has given fits really well and that there's no alternative (we'll have to take his word for it), therefore it must be true. Real life creationists, though, as opposed to the "some Christians say..." straw-men who roam through the pages of this book, have no

problem in accommodating the concept of many inactive genes in the human genome. We believe in the fall - a fall which had a real and very serious effect on humanity at very many levels. Man became subject to all kinds of illnesses, sicknesses and even death. As there is no real separation between the theology and the real-world biology, what that would mean among other things for the genes is that we would expect to find we lost abilities in our genomes, which is just what DA skilfully explains. DA relies heavily on what he says are identical losses of functionality in humans and some of their supposed evolutionary cousins. Again, though, there are other possibilities. These gene sequences may not be as useless as presently thought - future science may discover a function we do not presently know, making DA's argument a Darwin-of-the-gaps one. Or, the common Designer, having designed man and physically similar beings using common design, may have at the fall made common changes in the genomes. DA's argument that common gene sequences *must* mean common ancestry (as opposed to common design, a thesis he never mentions), is an empty assertion.

DA's down-grading approach to Scripture is nowhere illustrated more clearly than in the case of his explanations of what the Genesis account says about Eve. Eve was made out of Adam's side whilst Adam was in a deep sleep (Genesis 2:21). DA explains all of this, goes on to explain the significance of this for the doctrine of marriage... and then goes on further to assert that therefore since the important implication is the doctrine of marriage, we thus should not insist that Eve was actually made out of Adam's side after all. With the skill of the clever rhetorician he is, he seeks to make this sound as ridiculous as possible: "Now if we take this ... as referring to some early Near Eastern operation during which God both provides the anaesthetic and does the surgical manipulation of a male rib to generate a woman, then we will have missed the point of the text by reading it through modernist spectacles. No, if we go down that route then we are in real danger of abusing the text, which is about the foundations of marriage." DA, though, does not trouble himself to investigate the New Testament texts where the writers do, with all seriousness, interpret the details of Adam and Eve as real historical phenomena and not just nice literary teaching aids (e.g. 1 Timothy 2:13 - Eve being formed after Adam, or 2 Corinthians 11:3 - Eve really was deceived by a talking snake!). The irony is that it is DA's own non-apostolic interpretation which is classic modernism. He reads Genesis 2, scoffs at the idea of a talking snake or a woman being formed out of a sleeping man's rib, and concludes like a good rationalist that it cannot *really* mean that, and therefore we are just intended to extract the theological payload from the passage and leave the vessel that was used to teach that payload in the realms of mythology where it belongs. Similar is his treatment of the name given to Eve, the "mother of all the living" (Genesis 3:20). This disagrees with Darwinian orthodoxy, and hence cannot be literally true, so DA re-interprets it to say that it might mean that she was the mother of the family of faith - later in the book DA will admit that Aborigines cannot, if Darwinism is true, be descended from Eve, which leaves some interesting implications...

Hence it's no surprise to find that DA entirely skips over any discussion of Genesis 5, with its very down-to-earth genealogy, with a long list of dates and names, of Adam down to Noah. It's hard to extract too much theological significance from "And Enos lived ninety years, and begat Cainan", unless in fact *Enos living 90 years and begetting Cainan*, i.e. the literal history, is itself the theological significance. That is how it is, because the Bible writer is tracing out the line which eventually leads to Abraham, David and Jesus the Messiah - the line focussed on in 1 Chronicles 1, Matthew 1 and Luke 3. The real-world actual-historical nature of the text is not an optional extra that we can throw away, because the Saviour we have is a real-world flesh-and-blood one. Genesis finds a fundamental part of its significance in being *his* history. The Bible does not leave the question "who were Adam and Eve?" hanging in the air. It gives us a very full and precise account, complete with detailed genealogies which eventually go right from Adam to Christ. God promised at the fall that there would be a seed of the woman who would conquer the serpent (Genesis 3:15). Jesus is that unique man, and so the Bible is very careful to demonstrate very precisely how he fulfilled that promise, giving us his line and the dates going right back to the beginning, so that we might know him for who he is. The ultimate fact in Darwinian manglings of Genesis is that it's not just a side-story in the Bible that they're playing games with - it's the foundation of the whole lot.

Chapter 10: Who were Adam and Eve? Genesis and Science in Conversation

This chapter continues and concludes the discussion of the question of how to identify Adam and Eve, begun in the previous. As with the previous chapter, the bigger issues are revealed in this chapter by

taking a step back. It is amazing to see what DA is certain about, given how uncertain he is about many things in the Bible. Ancient teeth fragments can be relied upon to reveal human evolution in dogmatic detail. Stone tools appeared 2.6 million years ago. We know who lived near Lake Turkana (not so far from here - another few hundred k's up north - a couple doing food relief from this town travelled there yesterday) 1.44 million years ago, and don't make the mistake of saying it was 1.43 or 1.45.

The chapter, then, starts with several pages of dogmatism about the evolutionary history of man and his various cousins, the gorillas, gibbons, chimpanzees and Great Uncle Archie's family of throwbacks. There's some discussion of genetics, the development of human culture and language, before focussing on the "Neolithic" era (10,000 BC onwards), as the ultimately most relevant to the identification of Adam and Eve. This all winds up to the conclusion, which ought to sound out the big warning bells for anyone whose evangelical instincts haven't been thoroughly lobotomised by the 230-odd pages beforehand:

"It is against this cultural and historical background [reviewer: i.e. the history of humanity according to present Darwinian theory] that one needs to consider the early chapters of Genesis."

Did you get that? Perhaps you were one of those naive Bible believers who thought that God gave us Genesis as a true account of humanity's origins, so that by this divine yardstick you could measure, approve or reject all competing accounts. Perhaps you foolishly imagined that the Word of God gave you a cultural and historical background against which to test theories from other areas of study, such as Darwinism. Simpleton! DA will put you right. The sure and certain revelation of Darwinism gives you the truth, and against this background you must read the Word of God. If you can't spot the theological downgrade by this stage of the book, you're not going to.

There's then a small aside whilst DA considers the question of whether humans are still evolving. I applaud him for including it, as many times in the book he simply skirts around relevant issues. In DA's theology, creation is via gradual processes which are part of the world today as much as they are the past. This does raise as a natural question - so, are human beings still developing upwards, and shall we in future be something else? Did Jesus die for the coming homo futuris as well as the present homo sapiens? Well, DA poses the question but his answer is a pot of warm slop. Holding to Darwinian orthodoxy, he doesn't deny any of the premises, but falls back on giving three reasons why future human evolution (though theoretically possible), is unlikely in practice. What it boils down to is that in the modern world we don't get the isolated populations where natural selection can kill off the weak before they pass on their faulty genes. I think DA's answer needs to be better informed by the realities of present anthropology, because what he says isn't true. It's widely reported in the news in recent months (following a kind of contact made with an isolated tribe in the Amazon rainforest) that there are still believed to be around 100 tribes in the world that have no contact with the rest of humanity or with modern life. So DA needs to cook up a better answer than this one. (Did anyone see Steve Jones' answer to the same question in the Telegraph recently? Equally preposterous!).

This then leaves us with the synthesis of all the material in the preceding 40+ pages on the Adam/Eve question. After all this, just who were they?

DA presents us with five possible "models", different ways in which Christians have answered the question. These range right from saying that Genesis is thoroughly mythological, just a story to teach timeless truths, to the young-earth creationist (YEC) position that Adam and Eve were created immediately out of the ground on the sixth day. You can guess which model DA is going to favour and which he holds in utter contempt by the number of words he gives in describing each: in turn models A, B, C, D and E get 1/3 of a page, 1/2 a page, 3 pages, 1/3 of a page, and 1 sentence. Yup, model E is the YEC position (D is old earth / episodic creationism), and as DA wants to keep his good standing in the academic community its necessary to make clear he sees it as beneath his contempt to discuss, so just 1 sentence it is. DA sees all these models as possible within a Biblical framework, which is a revelation in itself about DA's approach to Scripture, though consistent with all we've seen so far. Whether you take an out-and-out liberal position and assign the foundational historical narratives of Scripture to the wastebin of utter myth, or whether you think that when God says he made Adam directly from the earth he really means it, is a matter of comparative indifference, though DA has a preference. After this, models D and E simply get tossed into the wastebin, because they are incompatible with the theory of human evolution, and that, to DA, is all that needs to be said to tell you they must be false.

That preference is model C, which recognises that the rest of Scripture does treat Adam and Eve as real historical individuals (not generic humanity, or "everyman"). Moreover, it recognises that this is going to be "perhaps" somewhere around 6-8,000 years ago - here we get the only fleeting mention that the Bible (e.g. Genesis 5) contains detailed genealogies, a point inexcusably absent when DA is discussing what literary genre the Genesis accounts are. This dating would make them (reading Genesis, as we have been told we must, against the backdrop of the certainties of contemporary Darwinian accounts) Neolithic farmers living somewhere in the east.

This identification does then pose a number of theological problems if you want to keep carrying your membership card for the club of Darwinian orthodoxy, such as:

- Mmmm, doesn't that mean that far from being the first two humans, there were actually many thousands of others around at the time?
- And those others... they will have already developed human language, culture, art and religious rituals, according to contemporary archaeological and anthropological thinking.
- So how can Adam be the father of the human race, and Eve the mother of all the living (Genesis 3:20)? What does this mean for the doctrine of original sin?
- And this means that Adam had human ancestors (following the grunting gorillas) - so what of the genealogy of Luke, which puts Adam at the head? (Luke 3). How can Paul call Adam the "first man" (1 Corinthians 15:45)?

What we see as DA looks into some (but not all, particularly the interesting one about original sin - see Romans 5:12ff) of these questions is the same picture we've seen all the way along. His evolutionary orthodoxy holds absolutely firm - and the Bible becomes a nose of wax to be moulded as one pleases. He grants all these implications (lots of other humans, the human race is not all descended from Adam and Eve, Adam had human ancestors, etcetera), and then goes around to find some theological wheeze to still allow some kind of meaning to be put on the Bible's plain statements, and then he proclaims the resulting massacre of the sacred Word to be an elegant harmony of "science" (read: Darwinism) and "theology" (read: the Bible's history). Yuk.

The basic answer is that Adam was the first man to whom God started to reveal himself in a special way - the first man to come to a heightened awareness of God and his greatness, and to be invited into a saving relationship. What about the salvation, DA asks, of those who were before and scattered in other parts of the planet? We don't know, he answers, and should be humble. More pertinent would have been to ask, "saved from what - what does this concept mean in DA's alternative proto-history?" The picture DA gives us for Adam is basically that which holds for Abraham - a chosen family picked graciously out of a world of ignorance. What "graciously" could mean in a context where nobody else even has this mysterious awareness of God and hence none at all of his moral laws or commandments could mean, we are never told. The "salvation" DA has in mind seems to be very amenable to contemporary thinking - a kind of "God became my special friend", rather than the deliverance from holy wrath against wilful covenant-breakers which is actually the story of Scripture.

This leaves us wondering what the fall could mean. If life had gone on for gazillions of years, and intelligent humanity for tens of thousands, with no knowledge of God (how, from Romans 1:18ff, is that possible?), and God decides now to enlighten a couple of farmers a little, if they say "no thanks" what kind of fall is that - to just continue as you were before? How to understand death, the fall and evil within this bizarre framework are the subjects of the next three chapters. But perhaps I can urge my readers... it really is so much simpler just to believe the Bible as it really is than go into this insanity.

Chapter 11: Evolution and the Biblical understanding of death

The next few chapters of the book are in my opinion particularly significant, and worth reading especially for any wavering creationist who wonders if he's making too much fuss over the origins issue. In these chapters, Dr. Alexander spells out the theological implications of his "evolutionary creationism" view. Accommodating one's interpretation of the Bible to Darwinism comes at a price, and in these chapters DA spells out just what that price is, with commendable candidness. From an orthodox evangelical point of view, the concessions that have to be made are much too great.

The organisation of the book could have done with a little more work in this bit, because in fact a significant part of the discussion is contained in the next chapter, "Evolution and the Fall". As "by one

man sin entered into the world, and death by sin" (Romans 5:12), as God had promised (Genesis 2:17), you can't really discuss the Biblical doctrine of death without discussing the Fall. DA, though, does appear to think otherwise. As he presents these matters, this chapter is intended to be a "complete" (page 253) summary of the Bible's teaching on death, and the Fall is something that we can better understand after (not as part of) getting this "complete" understanding. This is not simply a matter of presentation. DA's doctrine of death and the Fall really does depend on this separation.

DA presents death in three parts - physical death, spiritual death, and the "second death". That in itself is OK - until you realise the hermetic sealing existing between the first and second of those (except in the case where God sends physical death as a particular judgment). That's how the Fall doesn't need to be discussed in this chapter at all - there is no reference whatsoever to Genesis 2-3 or to Romans 5 - because these two kinds of death are quite independent.

What, then, of physical death? First it's good to ask what Darwinian orthodoxy would require us to believe here, because if you've read this far in the book you'll know that that will be precisely what the Bible will end up being found to teach, or at least be "compatible" with. According to the long-ages dating DA adheres to, and the placing of the various evolutionary dates on that scale, anatomically modern, intelligent, cultured humans were around for plenty of time before Adam and Eve, who had human ancestors (though, DA adds, they would not have had any knowledge of God). Physical death is an essential part of the evolutionary engine, including in producing humanity. It cannot be an evil intruder, but has been the normal course of events for the 99.99(etc.)% of history before the Bible's timeline begins. What this means is, that you can't have the orthodox Darwinian scheme, and believe that death invaded the human race in a terrible way as a result of Adam eating the forbidden fruit.

So it is, then, that we find DA writing such heterodox untruths as "Nowhere in the Old Testament is there the slightest suggestion [sic] that the physical death of either animals or humans, after a reasonable span of years, is anything other than the normal pattern ordained by God for this earth" and "the Old Testament ideal is a long and useful life obeying God's will, followed by death." DA follows a consistent pattern throughout the book. He does not interpret Old Testament texts using the light of New Testament revelation; he instead follows the modernist error of treating them in isolation (though in this case I think even with that treatment you shouldn't go as far wrong as this). Hebrews 2:14-15 states that "Jesus... [came] that through death he might destroy him that had the power of death, that is, the devil; and deliver them who through fear of death were all their lifetime subject to bondage." What does this mean? Jesus destroyed death through his physical death. Death cannot be cut up into neat "physical" and "spiritual" portions in DA's fashion, and then the portions utterly divorced from each other - the apostles' inspired explanations forbid it. Distinguished, yes - separated and divorced, no. DA writes (page 245, emphasizes mine) "Although there are hints of the possibility of resurrection in the later books of the Old Testament, there is no developed resurrection teaching within the old covenant". Jesus, though, thought differently, and severely rebuked the Sadducees, who only believed the first five books of the Bible, for "erring", "not knowing the scriptures, nor the power of God", for not understanding that the teaching of the resurrection was clearly stated in the second book of the Bible, in Exodus chapter 3 (Matthew 22:29-32).

DA emphasises the normality of death in the Old Testament, but because this is entirely without any discussion of the Fall - i.e. the event which brought death in - it's a totally out of context discussion. Yes, of course death is normal - that's because the first father of the human race rebelled against God, and we inherited his sin and punishment (Romans 5:12ff)! DA, though, manages to give a "complete" discussion of the Biblical doctrine of death without mentioning the fall, and ends up concluding - just as orthodox Darwinism required him to do - that death is totally natural, and part of God's design for life on this earth. In this context, it then makes no sense (though DA never addresses this tension - is he aware of it?) when DA proceeds to the New Testament to talk about liberation from death, and that "Physical death has no place in the fulfilled kingdom of God", quoting the verses about tears being wiped away, etc. (p249). He speaks of physical death being "an enemy to be overcome", but we have no idea how this can be seen as it was perfectly natural and necessary for our upward progress out of the sludge. DA's answer seems to be that it's just by contrast with the wonderful kingdom of Jesus - such a glorious thing that it makes death seem dark by comparison. DA ends up with the answer that the reason for physical death is that it is necessary for us to inherit the kingdom of God via the resurrection bodies, which could not have been done otherwise - though DA then grants that in fact this is not necessary because those who are alive when Jesus returns *will* inherit the kingdom without physical death. Confused? He certainly is. (As someone with a systematic bent, this leaves me wondering what DA supposes would have happened to

Adam if he had passed the test of the tree, and been admitted into life - would God have killed him anyway so that he could then have been resurrected?) What we have here in DA's theology is not the apostles showing how the Christ event fulfilled the Old Testament Scriptures. Rather, they rewrite them - death, which was nice and natural before, suddenly becomes an enemy because of newly revealed future resurrection which the Old Testament believer would never have known about. Having the New Testament rewrite the Old in this way instead of fulfilling it makes us feel sympathetic for the Jews who rejected Jesus - it seems that they were correct about him not being the promised Messiah *of Scripture* after all, and for teaching different truths to the ones they found in their Bibles!

DA's faithfulness to whatever most contemporary scientists think is most likely concerning the past is very admirable. The price, though, is a corresponding loss of faithfulness in believing what God has actually testified about the past, and a resulting mangling of the Bible that has to take place in order to bring these things into line. I am indeed grateful to Dr. Alexander for spelling out some of the implications for Christians who seek to fold evolution into their systems of belief. DA isn't one for compromising when it comes to doing that, and he shows us exactly what price you're going to have to pay if you're going to be consistent instead of picking and choosing the bits you like. I hope that discerning readers will read this section of the book and respond with a resounding "No thanks".

Chapter 12: Evolution and the Fall

This chapter (which really is a continuation of the previous, "Evolution and the Biblical understanding of death"), has really only one claim. That claim is explained from a variety of points of view and applied to different situations, and discussed in relationship to different Biblical texts; but it is a single claim. The claim is that the Fall was an event that no physical affect upon humanity or the world. It was a spiritual event, not a physical one. It made no difference to the phenomena of pain, sickness, suffering or death, all of which existed before and continued afterwards, both for mice and men.

Thus, if you only have time to read one chapter in order to see how a theistic evolutionary position works out when applied to particular issues, this is a good one. This is the chapter to read if you want to see how far from orthodox evangelical theology you have to depart in order to accommodate Darwinism within one's overall scheme.

DA achieves these conclusions mostly by continuing to interpret Genesis overall as a "theological and figurative" (by which he means, not essentially historical) narrative, and by interpreting other relevant Biblical passages through the false dichotomy of "spiritual death" versus "physical death". This is carried on even when dealing with passages such as 1 Corinthians 15, where the physical resurrection from physical death is stage front and centre - even then, it never seems to really dawn on DA to see that this dualistic separation is fundamentally un- and anti-biblical. The exegesis is also characterised by a liberal dose of the "this passage is difficult, therefore we don't know for certain what it means, therefore it can't be held to mean the thing I don't want it to mean" interpretative method, known in more polemical parlance as "blowing smoke" or "hand-waving". Does Romans 8 state that the created order itself is in bondage to decay because of man's sin? Ah, but this "passage has kept commentators and PhD theology students happily busy for centuries!" so "we cannot be too dogmatic about the interpretation". And so on and so forth. Same picture as we've seen throughout the book - what Darwinism speculates must be treated as proven scientific truth, whose accuracy is established by the certainty of the scientific method... what the Bible says is difficult and must not be treated with dogmatism, and if we can find a way of reading it that doesn't contradict the theory of evolution, we should allow that as a possible interpretation.

What then is the Fall? It's a purely spiritual event. Friendship with God was offered to a select family of Neolithic farmers in the east (whilst, remember, many other humans were living in other parts of the world, including the Australian Aborigines who aren't descended from Adam). They rejected it, rebelling against God, losing the life he offered. This makes the Fall basically a loss of something that humanity never had. It bumbled along for many tens of thousands of years (according to DA, as explained in the previous chapter) without knowing God... that knowledge was eventually offered to one particular couple, who rejected it - which, unless my logic circuits have been fried, basically means that "the Fall" means that nothing happened - things went on as they were before.

DA's treatment of pain is a massive departure from evangelical orthodoxy. Biology is a package deal; you can't have all the good things in there without the bad things, and it's pain and death that grease the skids

of the evolutionary machine and make all our pleasures possible. If you think pain is an evil intruder, you've been reading Milton's "Paradise Lost", instead of the Bible. It's not possible to be a sentient being without pain. The implication of this is that God is not the master of creation who determined its modes of operation, but is a prisoner to its limited possibilities - apparently not even he could have designed a system where humans could experience pleasure without experiencing pain; this is simply logically impossible, like squaring the circle or making two and two come to five. DA then gets himself into something of a pickle when he concedes that the future kingdom of God will be without pain or suffering - because then it seems that God *could* in fact do such a thing, and that sentient beings can exist without pain... but DA either never realises, or simply decides to pretend not to notice, this glaring contradiction. (Or perhaps the future creation is utterly ethereal and immaterial - angels floating around with harps like those Daily Mail cartoons after all). DA concludes that the healing ministry of Jesus was not to do with him restoring a fallen creation, but simply pointing the way to a new one. This means that redemption is not, contrary to orthodox Christianity, creation restored and perfected; it is creation replaced. This is not evangelical theology. It is, though, what you get when you insist on the truth of Darwinism, and from that point of view I am glad for DA making clear what the extent of the theological pay-load is if you ever feel tempted to do that.

Chapter 13: Evolution, natural evil and the theodicy question

In this chapter, DA continues to address the question of how to integrate on the one hand the account of history and the development of life given by Darwinism, and on the other a Biblical theology. This especially concerns questions over the Fall, Adam and Eve, and the existence of suffering and pain (so-called "natural" evil as opposed to "moral" evil). This chapter particularly focuses on the latter set of issues. DA introduces it this way, though the chapter itself actually ranges over a much broader range of territory:

"The question before us is how a good God could choose to bring about all of biological diversity, including us, by such a long and wasteful process which involves so much death and suffering." (p277)

Much of that ranging seemed to this reviewer to not be especially relevant, but other material that DA found interesting, wanted to get in the book, and shoved in in various digressions in this chapter as the best place. Perhaps there are connections that evaded me. DA's basic answer to the question is one that exists in perfect harmony and continuity with the trajectory traced out in the previous few chapters. The Darwinian account of the earth's history is not up for critique or question; the Bible will not be used to examine whether there are any faults in what contemporary secular scientists say about the past. Rather, this will all be taken as certain truth, and what will be done is to search out for a theological justification by which the general themes of the Bible can be harmonised with it.

Such a harmony, as we've already seen in the discussions of the Fall, requires that pain and suffering cannot be seen as unnatural intruders into God's "very good" creation, coming because of Adam's sin. No - such an approach irreparably contradicts Darwinian dogma, because DA has already explained that humans and such unpleasant experiences had been around for many aeons before Adam was ever born to his father and mother. It's instructive to take a step back and observe how little effort - none - DA takes to actually derive his theodicy from the pages of Scripture. These questions are not answered by any kind of inductive study of Scripture, but by an exploration of the speculations of various non-evangelical theologians, of whom the most familiar to most readers will be John Hick, the pluralist universalist. This is not unexpected; beginning with an evolutionary framework as the starting point instead of Scripture, it's only really going to be such theologians who are going to have a compatible framework to help you.

The harmony itself, then, amounts to this: biology is a package deal, carbon-based life cannot be created without the accompanying down-sides, and who are we to label the natural evils that we see with such subjective labels as "wasteful" or "evil" when God has seen fit to use them as part of the process which brings about all the good and enjoyable things that we can witness and experience? In DA's solution to "the problem of evil", then, the problem is not so much as solved as defined out of existence, with various exceptional caveats in the particular case of suffering humans. Here are some representative quotes:

"Biology is a package deal. Once we have carbon, phosphorus, oxygen, nitrogen and the other key elements for life ... virtually any plus that we care to mention is going to have an

inevitable minus." (p279)

"As noted in previous chapters, life, at least carbon-based life of the kind with which we are familiar [reviewer: i.e. including humanity], is impossible without death." (p279)

"... without genetic variation between us all, we would all be clonal, looking identical. But it is that same genetic variation which affects our susceptibility to certain diseases, and which causes genetics diseases or cancers - necessary costs of living in a carbon-based world."
(p280)

"It is a world in which moral and spiritual growth is made possible - more like a Boot Camp than a Holiday Camp. No pain, no gain." (p288)

DA's answer, then, is that the "problem", if it is one, is essential. It's like $2+2=4$, or requiring that squares have right angles. God himself couldn't do it another way. If you want life in anything like the present form, then this is the only way to have it. Throughout the chapter, the answer is consistent - it's not because of sin. Human wickedness plays no real part in the evil of this world - don't say, "fallen world", because the Fall is to do with unseen, inner, spiritual reality - relationship with God - not to do with the dust and dirt of everyday life.

DA's dualism becomes Gnostic when he relates this to the new heavens and the new earth - the age to come. That will, he allows, be one free of such pain and suffering, a different order entirely. As remarked before, what this means is that salvation is not to be conceived of in terms of an originally good created order which was ruined through sin then being redeemed and glorified through the work of Christ - rather, Christ liberates us from an order that was originally and essentially unpleasant, to something better. We're freed from the prison of the pains of this life, into a better and ultimately disconnected order. Not creation restored, but creation replaced. This leaves us wondering (DA never even approaches this question) why Christ had to bring this new creation about in such a flesh-and-blood way. He came as a carbon-based life-form, so to speak, and suffered in the flesh. He underwent physical death, in order to bring in the new creation (2 Corinthians 5:17-21). But why? Why was physical incarnation, physical suffering and physical death needed, when the physical suffering and natural evil has nothing real to do with sin, the Fall and the spiritual world, or even in the case of physical pain is actually something necessary and good?

Ultimately, this chapter has no real relationship to a Bible-based theology. It scrapes around from what this or that Princeton University scholar had to say that can be made to fit into an evolutionary worldview. At best it has some helpful thoughts that could be developed in a Scriptural way. At worst, it undercuts the Bible's own historical narrative and removes the foundation of the gospel, replacing evangelical religion with the ancient and disastrous Gnostic heresy.

Chapter 14: Intelligent Design and Creation's Order

The chapters looking at how to harmonise Darwinism with a biblical theology are now over. For me they were the most interesting and revealing part of the book, and the only ones where consistently DA makes a serious attempt to answer some difficult questions instead of neatly side-stepping them with word games. What remains is more patchy - some left overs that didn't fit elsewhere. If you want to read the meaty portions of this blog-review, skip this and scroll down to the previous 5 or so chapters!

The purpose of this 19-page chapter is to have some discussion of the "Intelligent Design" movement, associated with such names as Philip Johnson, Michael Behe and William Dembski. I got the feeling in reading it that DA felt obliged to include something about it, but was a bit tired (or just contemptuous) by this stage, and the chapter is a bit of a damp squib because it neither goes here nor there, but remains content with some rather general arguments and statements - except for some more detailed discussion of the bacterial flagellum. It's all a bit of a damp squib, because packed into these 19 pages DA wants to survey the history of the movement, its personalities, its claims, and then comprehensively refute them such that he can conclude that the whole thing's a waste of time. That's a book-length project in itself. There's no problem with brief discussions of these things that skim the surface, but in these days of avalanches of free articles available from the Internet, you need to do a bit more than the kind of surface-

level chatty repeating of talking points that this chapter is mostly made up of. It's rather disappointing that so many of those talking points seem to have been cribbed from village atheist websites - we expect better, particularly from someone who spends a few pages opining on how proper scientific research is done. We even get a celebrity appearance of the Pennsylvania school board court case and "Judge Jones, a practising Lutheran and Republican appointed by President Bush", the claim that ID does not fall within the definition of science (though DA concedes that it is in principle falsifiable) and such gems of self-delusion as the claim (made earlier in the book in the context of creationists) that editors of science journals would be falling over themselves if anyone had any legitimate criticisms of Darwinism and would gladly make any scientist who had them an overnight star! Puh-lease.

I was hoping that DA might take a step back and answer a certain key question, which he never does. Let's grant for the sake of argument that the present ID movement isn't close to what he wants to see. Fine. But, is it, in principle, a legitimate scientific endeavour to investigate the distinctive signatures of intelligent agency and self-determining minds? And if so, is it legitimate to apply whatever the outcomes of such research are to the study of nature - which, after all, DA agrees is the product through whatever mechanism of the mind of God? These are the key questions which expose the philosophical bias inherent in contemporary origins science, with its presuppositional exclusion of any idea of intelligent agency. That's what ID proponents mean when they criticise reigning "materialist" paradigms, but DA never discusses this (an earlier part of the book discussed the idea of "naturalism", but in the straw-man form of "the absence of God language" rather than in terms of the presuppositional exclusion of the idea of intelligent agency). The nearest DA gets to answering the question of the legitimacy of "design detection" is when he addresses the point that such detection is common-place in other scientific fields - e.g. forensics, cryptography, archaeology and SETI (the search for extra-terrestrial intelligence). If we scan radio waves from outer space looking for patterns which we would conclude indicate intelligent life, why can't we scan the genome to see if its patterns indicate intelligence? DA's very lame answer is that "these are all examples where we already know that purposive human behaviours, or purposeful actions by potential little green men, are involved, so we are not surprised at finding evidence for such behaviour". Pardon? We *know* that certain radio signals would be purposeful actions by *potential* little green men? This is the most egregious and obvious begging the question. But, to take a step back... actually I, and every other Christian, already *know* that life is the product of a supernatural intelligence. DA conceded that in the first sentence of chapter one. He seems to have changed his mind now, though, put on his white coat and become the epitome of the Enlightenment scientist, who goes into his lab believing nothing except what he sees down the microscope. Does he *know* that DNA is ultimately the work of an intelligent agent or not?

Leaving aside this brief and weak argument, what we do get in detail is an argument that the bacterial flagellum does not constitute an irreducibly complex system, though DA only actually examines one small aspect of this question, and concludes that time will bring solutions to the missing parts of his argument. The major argument against the possibility of irreducible complexity is a circular one. DA argues that (and this is another village atheist talking point), as time goes on, science is able to provide answers to things we didn't know, filling in the gaps, and if ID relies on identifying irreducibly complex systems in biology, then as science continues to provide these answers then the gaps will inevitably shrink, and any "designer of the gaps" who was relying on the empty spaces will soon vanish. That's a circular argument, because it assumes in advance that ID is already known to be false, that irreducibly complex systems don't in fact exist and that the small, gradual steps of Darwinism will be able to explain everything. What, though, if in fact they can't? What if Darwinism isn't true, and IC systems do exist? In that case, increasing scientific knowledge will increase the "gaps" that exist between Darwinian explanations and reality as we know it, and the evidence for the designer becomes larger. Darwin himself knew nothing of DNA and the methods of inheritance. He knew nothing about the origin of life - and what we've discovered since his time has progressively shown the overwhelming improbability of a non-intelligent cause for life. Darwin imagined a little warm "pond"; now we know that the conditions for life are so many and so complicated that Darwin was indulging in day-dreaming. The gap between his speculation and reality has opened right up. DA, though, simply rehashes an Internet atheist circular argument which assumes the final outcome of what he's arguing in advance.

Chapter 15: Evolution - intelligent and designed?

This is the penultimate chapter, the final one addressing the question of the origin of life on which so far nothing has been said. It follows on from the previous chapter which critiqued the "Intelligent Design" movement, making some further criticisms on a philosophical level before going on to ask what we can say positively about design in nature.

After school I studied mathematics at university, and whether that was a symptom or a cause, I think I've ended up with something of a nose for a system. I like to see the big picture. On that level, I've appreciated DA's book - he's a consistent man. Yes, there are arguments here and arguments there which contradict each other. And I've made it abundantly clear that I don't think that his overall system is close to being consistent with a Bible-based understanding of the world's creation or history. But, on the "big picture" level, his system is consistent with itself. It all hangs together. His overall view of God's method of creation, the principles for interpreting Scripture and relating it to science, the identity of Adam, the Fall, the relationship between sin and the physical world, the natural and supernatural, all follow the same lines throughout the book. That's a good thing, because if someone changes their line every chapter then there's no real possibility of rational consideration or debate.

It's that consistency throughout the book up until now that defines the disappointment of this particular chapter - because here it rather goes to pot. There's nothing much to dislike about the Biblical exegesis in this chapter, because apart from a few fragments thrown in like raisins in the cake, there isn't really any. What there is is a collection of (in my assessment) ad hoc arguments thrown together with little regard to whether they agree with each other or the rest of DA's thesis. In this aspect it continues and magnifies the trend I remarked from the previous chapter - he seems just to have joined together a number of second-hand talking points, and it's disappointing because the rest of the book is much more considered. I will make a few comments about a couple of those ad hoc arguments - readers can analyse the rest for themselves - then I want to go on to looking more broadly at the "big picture" of this chapter.

Rent-an-argument

So it is that DA, having for the book so far criticised creationists because they seek to mix the Bible with science when he believes there is a much greater separation between those domains than they do, now criticises ID theorists for not being explicitly Christian enough in their writings. After telling us on page after page that Scripture does not give us scientific information and we must trust the scientific process for anything in that realm, on page 317 we now read, "So I find it worrying from a Christian perspective that ID proponents are so insistent that they do not look to Scripture for their core beliefs, but instead to a form of natural theology". (Of course, this statement is in itself nonsense, because DA's chosen to treat ID theorists' statements about *their scientific methods and conclusions* as if they were the whole of their belief system).

Again, for the book so far, DA has insisted in the soundness of the scientific method and that it is to the peer-reviewed consensus that we should look for truth about earth history, not Scripture (which has a theological, not a historical/scientific account). Now, though, when DA wants to argue that in fact evolution can perhaps be seen as an objectively directed, purposeful process, he starts talking about "recent" scientific writings which suggest this or that, though they are a minority, and which might point the way to understanding Darwinism as non-random after all, despite the consensus. He speaks of it being "interesting" to see "challenges" to that consensus, and so on. This is having your cake and eating it. Either you get to patronise dissenters from the mainstream, or you can be one, but not both.

Naturalism

DA makes a real hash of discussing the question of naturalism. His criticism is that when seeking to identify particular instances of design in nature, ID theorists concede that other things do not exhibit specific design and can be described in terms of "naturalistic" processes - and thus, he says, ID theorists give the idea of a universe in which God is only immanent in a limited number of places, rather than being present in everything everywhere. This misses the point entirely. The point is that of mind and intentionality. Suppose I deliberately place stones around my garden in certain locations, though those

locations were not chosen based on any rational principle. Suppose also that there are other stones which were "just there" already from whatever had happened in the garden over the years. The resulting scattering would look much the same. A mind was involved in one case, but not in the other - but there's no way of detecting the presence of the mind. Suppose, on the other hand, that I placed some more stones to spell out the words "Darwin sucks". I think if you entered my garden and saw that, you'd conclude that a mind (whether one whose workings you sympathised with or not!) had been at work. A mind had been at work in two of those three cases - but in one, it was specifically detectable because of certain patterns in its activity. That's what's going on in ID. ID theorists are not addressing the question, "are these other things also from a mind?" or conceding that they're not. They're conducting a limited enterprise - seeking to recognise certain and limited signatures of minds, in nature. That's a simple enough distinction to understand. DA, though, spends the relevant parts of this chapter involved in what is in my opinion cheap-shot polemics, misunderstanding things at every turn and then building criticisms on those misunderstandings.

Arguments against ID

DA argues again that ID is an argument from ignorance, saying that Dembski's explanatory filter (does it describe law-like behaviour? If not, could its assembly be explained by a chance evolutionary process? If not, then the remaining alternative is design) is a "design of the gaps" argument, and that future knowledge may fill those gaps in terms of one of the first two explanations, and that if the first two explanations don't work we should say that we are simply ignorant and need more work. But this is simply "stacking the decks". It's perfectly reasonable to consider a design thesis rather than ruling it out of court in advance - there's no reason from science itself why Darwinian explanations should get the priority against competing paradigms; only from anti-Christian philosophy and theology. A consistently Christian world-view and theory of investigation can never privilege non-design explanations in this way. The same point applies again when DA goes on to argue that to introduce the language of design into science is a category error. This argument is also far too broad, and contradicts the concession given in the previous chapter that cryptography, forensics and SETI are legitimate scientific endeavours to identify design. Why the dogmatic reflex that refuses to apply the same logic to biology?

DA's arguments to consider evolution itself as "consistent with" (not demonstrating or implying - DA concedes this can't be done) intelligent agency are astonishingly weak and far too subtle for any "man in the street". He argues that there seems to be some kind of fine-tuning of the system that made the rise of intelligent life in all of its diversity not a mere chance accident contingent upon several unrepeatable events, but inevitable - comparing it to the anthropic principle in physics. Biology has directionality - simple to complex - and biological convergence is consistent with viewing life as practically certain, not contingent. But we can't be totally decisive about this, DA concedes, because this is still an uncertain area with work needing to be done, and we only have one universe to examine so can't make overly sweeping conclusions. I'm left asking - is that it? In terms of the "man on the street", though, DA does refer us to Psalm 19 and Romans 1:18ff to insist that God's activity is everywhere obvious to everyone. Granted that this does indeed mean that it's not just evident to those with biology PhDs who can digest all of Behe's writings - DNA is not the final arbiter of design in the universe. But DA never answers in what this obviousness does consist, and what the relationship is between it and his specialist field of biology is. When DA writes that in four decades of research he's never found any antagonism to his Christian faith, he puts it down to contemporary Darwinian thinking not being remotely hostile to authentic Christianity. Having read this book, I'd put it down to the apologetic he uses being so lacking in substance that it's simply not going to present much of a challenge to anyone.

Is evolution designed?

DA's positive apologetic for a "designed evolution" never gets near the focal point of the Darwin/Christianity conflict. Granted, DA doesn't believe that conflict exists, but in writing a polemical book against creationism he ought to at least show he knows what those on the other side of the theological divide are actually saying. The point about Darwinism is that it excludes intelligent agency - a law-like process carrying on *according to its own internal principles* is sufficient to account for the end results, with no external guidance or mind-input being necessary. It is an *unintelligent* process. DA's

apologetic implicitly concedes this whole point - the design and evidence of intelligence comes in the system itself, not anything you can see as part of it or from within it - only by getting outside it and over-viewing the whole and comparing it with other (non-existent, entirely theoretical) systems.

Where's this going?

I don't believe that Christian apologists are intended to "prove" the existence of God by analysing DNA, etcetera. I do believe these things can have some supporting value. I don't think it's fatal for evangelism that DA gives away the farm here, because I'm not of the school that thinks that the heart of evangelism is about intellectual analysis of scientific data. The root problem is moral. It is, though, a problem that through this book DA is teaching Christians to effectively divorce the mind of God from the phenomena of creation. DA argues that this is not so - he holds that God is immanent everywhere. That immanence, though, has no cash value; you can't distinguish it from the giant impersonal machine of deism. Christianity that's a bolt-on extra to the real world is a disaster, and that's where I ultimately think DA's apologetic, when looked at in "big picture" terms, is taking us. Christians need to learn to see God everywhere, not just by faith in a theoretical immanence, but in the real world of flesh and blood. By that I don't mean that we say "it must be God!" every time we don't understand something. Far from it - when we do understand it, then we will understand God, but not just in terms of an undetectable immanence, but in terms of a wonderful, deliberate and wise design.

Chapter 16: The Origin Of Life

In this, the last chapter, Dr. Alexander returns after the digressions of the previous chapter or two to being consistent. It's another topic that didn't fit in somewhere else, but which we'd expect to be in a book addressing the question of Darwinism, so here it is. How did life begin? DA's position thus far has been that Scripture does not teach that creation was accomplished through supernatural interventions, because it does not use the specific vocabulary of miracles in the creation accounts. This trite conclusion was, as we saw, based on a word fallacy - DA arbitrarily defines the vocabulary used of *redemptive* signs (especially at the Exodus and in the ministry of Jesus prefiguring the true Exodus) to be the only words allowed to signal any kind of supernatural intervention, and finding these (redemptive) words to be absent from the creation account, concludes that we must expect the mechanisms of creation to have been in terms of ordinary processes still active in the world today. Which, handily, was exactly what Darwinism required us to believe.

When I saw that DA returns to consistency in this chapter, what I mean is that he doesn't contradict the above assertions which were made when considering how life developed now that he comes to consider how life began. We're not to look for the supernatural, miracles, nor any unique processes not still operative in the world today. In a word (mine, not his, because as we've seen he makes another hash of this one), the origin of life must have been naturalistic. (DA doesn't actually discuss this in the chapter - it's all assumed rather than argued that we must look for such a process and that God did not speak life directly into being). What evidence is there, then, that given the processes, reactions and laws operative in the world today, that life can begin from non-life? That it can't seems so far to be as certain a scientific conclusion as any - as yet, millions of man hours spent on the problem have only opened up more and more distance in our knowledge of what needs to be and what actually is. What does DA have to say about this?

Before answering that question, it's worth noticing that DA's consistency can only apply to the select issues he chooses to focus on. Going further back, we might ask - how did something come out of nothing? How did light come out of darkness (2 Corinthians 4:6)? What of the origin of the material world, time and space? At this point I'm presuming DA would have to concede that in fact creation *did* involve supernatural events, despite the absence of the words that DA requires to be present in the creation account before he'd believe it. (Surely he's not going to argue that there are processes operating on nothing that can bring about something? That in the absence of time and space can bring about time and space?) And if he did concede that, then he'd have given the basis of his whole position away. So much easier just to accept the plain sense of the Genesis account: God created immediately via a powerful, life-giving Word that brings something out of nothing; not via secondary mechanisms.

The chapter starts with three pages of special pleading in which DA privileges naturalistic theories of life's origin by complaining that the identification of self-replicating DNA as designed, requiring a mind, or not able to develop in small, gradual steps is to give up on proper research and just throw our hands up in the air and say "we can't understand it, it's designed". As ever, DA simply asserts that this is what ID theorists or creationists do, without any examples or references, continuing the pattern we've seen throughout the book of deceiving his readers as to what non-Darwinists actually assert or argue in real life. In reality, the identification of DNA as being designed logically leads to *more* research into its workings, not less - because whereas Darwinists are ready to write off parts of the genome whose function is not yet identified as "junk", from a creationist point of view (a super-intelligent designer designed it) this is antecedently much less likely (though non-functional or faulty parts can be accommodated into the creationist view taking into account the Fall). Believing that God created the first genomes out of nothing by a Word does, yes, end the question to seek for step-by-step developmental models. But it does open up other massive areas of investigation. When we realise a previously unencountered computer virus is deliberately designed rather than being the product of a silicon explosion, the investigators don't then say "no point studying it then!", but study it all the harder to see exactly what and how it has been designed to do its work. But DA decides, instead of intelligently discussing what that would mean, to just play polemics and falsely portray the creationist and ID positions as ending all research. Ultimately it's dishonest, because throughout the book DA adopts a tone of authority, as one who's surveyed the scene and is faithfully reporting on it to the non-expert who hasn't been there.

The substance of the chapter is really suitable for a specialist, as DA discusses various biochemical theories concerning how to bridge various gaps. A non-expert reader is not going to get much from this part of the book; the only clues as to the bigger picture are a couple of times when he says that any realistic over-arching theories concerning the origin of life are 50 or 100 years away. I wondered really what the point of the technical discussions were; anyone reading who was expert enough to assess them would also be expert enough to spot all the straw-men and misrepresentations of ID and creationist positions and so not be very impressed overall; anyone not expert enough will just skip this part. Perhaps the aim is just to blind the layman with science so that he comes away with the thought "well, I didn't understand that, but it seems like this guy understands the origin of life so it's probably not that great a problem". DA ends by repeating the accusation that if you assert that the origin of life wasn't naturalistic (which DA by daftly misunderstanding again what is meant by "naturalistic", asserts is a "sinister" and "pagan" theory), then you're an obscurantist. Rather, it just means you're not wasting all those fine brains and man hours on blind alleys - it's not as if the biology of life had no areas left needing lots of detailed research! There's plenty to do with studying *how God's creation works now* - it's no obscurantism to not waste time on useless speculation about how life could originate in a certain fashion when the word of God tells us plainly that it originated in another.

Thus ends the book's body - just a 2 page postscript remains.

The Postscript

Two and a half pages end the book - the first bit with a summary of all that's gone before, the second with the forward-looking statement summing up where to go from here. DA's got a good, systematic mind and ties the book up in a straightforward way consistent with what's gone before.

The first half, then, repeats what's been argued for. Science is essentially an objective, value and presupposition-free zone; ideologies are bolted on by others. Science looks at the historical reality of what God did; the Bible gives us the theological interpretation. Evolution is compatible with believing in a God of intentions and purposes for the world. (In my review of the preceding chapter I, to save space, passed over commenting on the very weak form of sovereignty DA argues for in evolution, explicitly disavowing the concept of a total control in favour of a general directional influence). DA argues that we can hold to both Darwinism and all the historical Christian doctrines of sin, the Fall and redemption. Arguing that is water under the bridge now. I think DA makes it clear as he argues those things that he holds those doctrines in a severely modified form that does not cohere with historical evangelical orthodoxy, and at times is grotesquely dualistic in some areas, even approaching a new Gnosticism (e.g. the interaction of

science and the Bible, the connection between theological and physical facts, and the relationship between the present creation and the new creation to come).

In the final part, DA takes the gloves off. The moderate language of the earlier book (though unless my detectors are wonky, it was always with a heavy dose of condescension) gives way to something quite different. At the beginning of the book, DA told us that these were matters of comparative indifference, that Christians must differ on them amicably, and that there is no excuse for any kind of harsh language or anathematising of any others because of different views on Darwinism. Either amnesia struck DA, his editors and proof-readers, or that was just flannel and now he tells us what he really thinks, or perhaps this last section was written after getting out of bed on the wrong side and he doesn't really mean it. Because now, he tells us that Christians who reject Darwinism are "embarrassing and bring the gospel into disrepute", are (via a quote from Augustine on a different matter) "dangerous... talking nonsense... embarrassing...", create intellectual barriers that prevent scientists from taking the gospel seriously, have caused very high-profile (but unnamed) scientists to give up their profession of faith, and to cap it all are following the theology condemned in the book of Galatians!

This then leads into the most cringe-worthy example of double standards, where DA, after writing a 353 page long book on the question of Darwinism, launches a stinging diatribe against Christians who waste time discussing Darwinism when the world has so many other problems to spend time on. Christians who reject evolution, he says, are "divisive" and hypocritical, talking about creation but not being the ones who spend time caring for it. They invest time in magazines about creation and fail to put money into helping the poor, tackling HIV, or funding orphanages.

I wish I could say I've never read this kind of thing before. I've probably done it myself; it's a striking example of the blindness of fallen man that someone who's just spent such a large amount of time on disagreeing with other Christians over the question of evolution can then launch such a vitriolic attack on anyone who else who dares to do the same. But we know what he really means don't we? He means, it's an evil waste of time and resources to address this matter *unless you agree with me*. This argumentation is silly and unworthy. It's also a false dichotomy. The creation God has made is very big - immense. God commanded us to subdue the earth - to have dominion over it (Genesis 1:28). Our hopes of doing that were ruined by sin, but restored and indeed made certain in Christ (Hebrews 2:6-9). Man is commanded to explore, harness and glorify God in every aspect of creation - physical, spiritual, intellectual, etc. Other than the gross generalisation in the above criticism, it's a clear fallacy to criticise Christians for spending time discussing and critiquing Darwinism and its effects on a Biblical world-view as if God commanded us to spend all our time building orphanages. That's a modern Western sentimentality that fails to get to grips with the vastness of the task that God set us in the creation mandate. It's a silly and cheap criticism easily turned back on the one issuing it. Why is Dr. Alexander living in the luxury of 21st century Cambridge, in the ivory towers of the Faraday Institute, when he could come out here and join me in Africa? There are slums with hundreds of thousands of people round here I can point him to. Why is he wasting time behind his desk penning insults against creationists when he could be down on the ground, caring for orphans and widows? I presume he has a good reason - and I can think of many excellent ones for this kind of thing. The point is, though, that these are cheap shots whoever is making them and whoever they are made against, whether they like Darwinism or not.

The note we end on has two more points. First, DA criticises creationists for not being enthusiastic enough about combating global warming. It has occurred to me over the last year or two that anti-creationist critics, whether Christian or atheistic, are necessarily committed to being fully convinced of disastrous man-made global warming theory. Once you take the position, as they do, that the mainstream position has to be the correct one (because of the unbiased and virtually infallible nature of the scientific process, cough cough), and that if Darwin deniers can't get published in mainstream journals then that must in itself prove they're wrong, then you have no option but to unquestioningly accept it all. It's the consensus position, and peer-review guarantees its truth. The parting shot is a final cheapie that follows on from this criticism - creationists are like the man who buried his talent in the ground instead of being good stewards of creation, for which DA references Matthew 25:14-30. He doesn't go on to explain whether, as it actually states in Matthew 25:30, he means to say that creationists are going to be cast "into outer darkness, where there is weeping and gnashing of teeth". Perhaps I'd better not ask; I wasn't feeling the warmth, anyway.

Appendix: Synopsis of the theology of "Creation or evolution - do we have to choose?"

I was asked to give some kind of descriptive overview of Dr. Alexander's theistic-evolutionary theology, how it deals with the various issues, etc. Here is what he says on the major points, in some kind of order, without comment:

- The book of Genesis in particular and the Bible in general is a theological, not a scientific narrative. This means in practice that we are not to read it as a necessarily historical account or a chronological one in its description of the acts of Creation in Genesis 1-2. To read details of those chapters as if they were historical is to treat the Bible as a science text book.
- The mechanisms of creation are not to be thought of as supernatural/miraculous. This is because the key vocabulary of miracles is not used in the Genesis account or otherwise when reference is made to creation. DA applies this specifically to the development of life and implicitly to the origin of life, but does not discuss the origin of space/time/matter. God's overall sovereignty over the (Darwinian) creative process is not in terms of engineering a pre-determined outcome, but in terms of a general directionality and overall purpose; though the facts imposed by God through the periodic table and other laws of his operation themselves likely are sufficient to guarantee the emergence of life as we know it now.
- The universe is about 15 billion years old, and the earth about 4.6. Basically all dates are as claimed by the scientific consensus. Man has only been present in the universe for the last minute of evolutionary time, if we think of time as a 24-hour day. There is no reason why in principle there cannot be alien life, and if there is it will probably be very similar to life on earth.
- Adam was most likely (though we mustn't be excessively dogmatic) a historical individual. The chronologies (which otherwise are not mentioned - I would have liked to ask what DA makes of the large ages in Genesis 5, because these contradict the scientific consensus which DA elsewhere always accepts as true) indicate he would have lived about 6000-8000 years ago.
- This means he would have been a Neolithic farmer, most likely somewhere east of Palestine.
- Human physiology, language, culture, etc., were all well developed by this time. Adam would have had human parents. But they were not made "in the image of God"; Adam was the first "homo divinus". The image of God means that there was the possibility of friendship/relationship with God.
- Moreover, Adam's human ancestors were themselves descended from ape-like hominids, which in turn were from other life forms, all the way back to the original single-cell organisms. There are no separate "kinds" - no boundaries which evolution has not crossed, but a single biological tree of life.
- We are not to think of man as bipartite (body/soul); this is not what Genesis 2:7 is telling us; we should think of him as a whole.
- Adam was only "theologically" speaking, not literally, made from the dust. Eve likewise was not actually made from Adam's rib, but was descended from her own parents in the ordinary way - to say otherwise is to read Genesis as if it were a science book. There was no talking snake. There were many other humans around at the time, which is proved by Cain's fear of someone else killing him. Not all humans in the world today are descended from the Biblical Adam and Eve; e.g., the Australian Aboriginals.
- Physical death was God's intention from the beginning, treated as perfectly normal throughout the Old Testament, which never hints there is anything unnatural about it. Adam and his ancestors were all subject to death and the Fall had no impact here.
- Likewise, pain, suffering, disease and so forth were all also original features of the creation, for men and animals of all kinds. They are endemic to carbon-based life - biology is a package deal and you can't be a sentient being without these things. Similarly, the Fall did not bring in any creation-wide principle of decay or corruption into the created order - it continued as it had ever been.

- The Fall was a spiritual, not a physical event. It did not lead to any kind of decay or degradation in the physical world (such as pain, suffering or disease).
- So, what was lost at the Fall was an offer of spiritual life as God revealed himself to Adam and Eve but they rejected him. Salvation is conceived of primarily in terms of friendship with God, as Christ offers us again the life that Adam and Eve rejected. The death which Adam and Eve brought in was a spiritual one, which means ignorance of God.
- How we inherit Adam's sin and the connection between his sin and ours is never discussed.
- The new creation to be brought in in future by Christ (which will lack pain and suffering) is not a restoration and glorification of an original state that was spoilt through sin, but is the bringing in of a new order of a thoroughly different kind. The resurrection from the dead is only dimly hinted at in the later parts of the Old Testament and those before had no expectation of it. Jesus' healing ministry does not point to him as the redeemer of something lost, but purely points in a future direction to the kingdom to come.

The thing to be appreciated is how the above all hangs together as a coherent whole. You can't really reject one part and keep another without introducing some contradiction in the system. There is a consistent and very sharp science/theology, physical/spiritual, old creation/new creation dichotomy running through it all, that makes sure that Darwinism is treated as true as an account of history, and the Bible is treated as true as an account of theological interpretation, and the two must generally be kept quite far apart.

I think I've made it clear enough throughout the review that by explaining DA's system, I'm seeking to expose how far from evangelical orthodoxy theistic evolution ends up being when you try to hold to it consistently.

Extra: Dr. Denis Alexander In The Evangelical Times, Reviewed

January's "Evangelical Times" (<http://www.evangelicaltimes.org>) carried a letter from Dr. Alexander whose book I have reviewed at length. He was replying to the review carried in the same newspaper by Professor Andy McIntosh, a prominent creationist and scientist at Leeds University. Professor McIntosh's review, a few months earlier (you could well be able to find it on the website) had pulled no punches. He stated, correctly in my opinion, that Dr. Alexander was "seriously in error", that his book was a demonstration of "how sophisticated we evangelicals have become in justifying our unbelief" and that the spreading of the philosophy promoted by Dr. Alexander really represents "the downgrade controversy of the 21st century".

Unsurprisingly, Dr. Alexander's letter didn't totally agree. In this post, I'm going to begin going through Dr. Alexander's letter, with the hope that it'll shed some more light on the issues for my readers. Here we go.

Do we have to choose?

Dear Sir,

Given the level of angst in Andy McIntosh's article in October's ET ('The Downgrade Controversy of the 21st Century') critiquing my book "Creation or Evolution - do we have to choose? (Monarch, 2008)", the reader might be forgiven for thinking that the theological gulf between us is rather wide.

Yes!

But this is not the case.

We shall see...

McIntosh and I both believe in the full plenary inspiration of the whole of Scripture as the Word of God; in a literal Adam and Eve; a historical Fall leading to separation from God of all humankind; and our deliverance from both spiritual and physical death through the death

and resurrection of Christ.

This letter, then, is aiming to downplay the differences between Dr. Alexander's attempt at a Christian Darwinism, and Professor McIntosh's (in my opinion, Biblical) creation theology. Along those lines, Dr. Alexander then lists a number of doctrines which he says the two of them both agree on.

In fact as I read this, the appropriateness of Professor McIntosh's invocation of the "downgrade" metaphor was impressed upon me. One of the striking features of the decline from evangelical orthodoxy in the late 19th century, and one that allowed it to escape from under the radar of many sincere evangelicals (or often those who should have known better but had no stomach for a fight) until the rot was well and truly endemic, was the use of orthodox terminology by downgraders. The liberals believed in the divinity of Christ and the divine inspiration of the Word of God... it's just that by "divinity" they didn't mean "deity" as Christians had historically done, and by "inspiration" they didn't mean "plenary inspiration", that word having now to be added for clarity's sake.

By referring to this, what I mean is that Dr. Alexander is being more than a little disingenuous. By this late stage in doctrinal debate in Christendom, we surely all ought to know that the mere heaping up of phrases to identify doctrines that we can all tick the box for, does not mean much. To make his Darwinian teaching acceptable to evangelicals he needs to minimise the difference between it and the historical faith, but I don't think he's being accurate in doing so. That is:

- Dr. Alexander and Professor McIntosh both believe in a "literal Adam and Eve"... but the Professor's Adam is the first human being, specially created from the dust on the sixth day of the world's existence, the historical father of all humanity, whose sin brought physical suffering and death into the world, and from whose rib Eve the mother of all the living was created. Dr. Alexander's is a Neolithic farmer who appeared at one second to midnight on the evolutionary clock, the descendent of thousands of years of prior humans who had lived and died with art, culture and religion, and ultimately the offspring of ape-like creatures, fish and ultimately bacteria. He did not bring in physical suffering or death, and is not the father of many people alive today (such as the Australian Aborigines). Dr. Alexander does also explain in his book that he sees his "literal" Adam and Eve as only a possibility, and also allows that a rank liberal approach, where the whole thing is just a metaphor not referring to any particular couple or set of events is also possible within the Biblical text... but, I presume because it's his aim in this letter to say things that a more conservative evangelical readership in ET will find palatable, he doesn't mention that here. Hmmm.
- Whereas they both believe in the plenary inspiration of Scripture, Dr. Alexander also brings to the Bible the prior doctrine and hard distinction (as he'll explain later in the letter), that the Bible is a "theological" and not a "scientific" one, and that therefore it simply does not speak of creation as a historical matter. That is, anything it has to say along those lines is screened out in advance by the hermeneutical grid he brings to the text. It's all inspired - but there are also presuppositions that will disallow it from giving us a deliberate history of the world's formation. Dr. Alexander believes that science is a second book, whose results in research into the past, can reach an equivalent level of truth with Scripture such that Scripture is not allowed to contradict it. Professor McIntosh, on the other hand, comes with the classical Christian presuppositional approach - that is, that Scripture is the ultimate and unrivalled source of knowledge, that must be consulted first and gets to set boundaries on all other fields, ruling out certain theories (such as Darwinism) in advance. The Bible is not an equal source of knowledge with Science, but science's lord.
- Dr. Alexander's "historical" fall is "historical" in the sense that it corresponds to an event in space-time. But to compare this to Professor McIntosh's fall, which agrees with that of historic orthodoxy, is to compare chalk with cheese. Dr. Alexander believes that the physical world, with its thorns and sweat coming from the brows of the sons of Adam, was that way before, during and after Adam's sin. He believes that pain, suffering and death is essential to a physical world of this sort with carbon-based life - "biology is a package deal". The fall was, according to him, purely in the spiritual realm: a relationship with God was offered and rejected. Professor McIntosh, on the other hand, holds that death came into the world because Adam sinned (Romans 5), and the whole creation came into bondage (Romans 8) and now dwells under a curse, suffering, disease and pain not being part of God's original "very good" creation. It is not intellectual integrity to seek to paper over the gaping chasm between these conceptions with the word "historical"

- Again, when Dr. Alexander says he believes in "deliverance from physical ... death" through the death of Jesus, he means something quite different to both the Professor and historic Christian thought. In his system, death is not (as we've already remarked), an unwelcome intruder, a curse placed by God upon rebels. He explains at length in his book that it was normal, part of reality, embraced by those who came before Christ with little or no realisation that something else would one day come until the apostles revealed that fact. Christ delivers us from physical death, not because that was part of the curse which he has redeemed us from by himself being cursed, but simply because the future creation and future kingdom are something of a different order, something better. Dr. Alexander's doctrine of salvation is basically Gnostic - creation is not redeemed, restored and glorified, but replaced with a different order entirely, an event which in the final analysis makes Christ's physical death theologically incomprehensible; we'll come to that later in the letter. The Professor, on the other hand, holds and teaches that physical death is an integral part of the curse (man being made body and soul, and so bearing the curse in both), and Christ had of necessity to come in the flesh and to suffer and die in it, to redeem us from that curse and eventually to purify the whole cosmos in the future re-creation.
- What we have here, then, is that Dr. Alexander has piled together a few short doctrinal labels which both he and Professor McIntosh could accept, whilst giving radically different content to them. The reality is not that they are very close together in their thinking about creation, fall and redemption - the reality is that Professor McIntosh's assertion that he's read in "Creation or Evolution" a new downgrading theology is on the right lines. As with the downgrade theology, though, the purveyors of new truths aren't honest or courageous enough to come out openly and say so - instead, they cash in upon the value of the true currency, hoping to pass off their own coins and notes by trading upon its strength. Why doesn't Dr. Alexander simply come out and state clearly that historic Christian thought about the nature of the Bible, the Fall and the redemption accomplished by Christ has contained major errors which can now be corrected by bringing our thinking into line with modern science? The hunting out of convenient words which paper over these differences is an amusing parlour game for intellectuals of that bent, but not, as the 19th century downgrade controversy shows us, something that will ever yield good spiritual fruit.

The agreement on these doctrines does not extend much further than the ambiguous labels DA has given to them. It's one thing to list labels that you could both accept as describing your doctrines - but those doctrines themselves in this case are very different things. It's in DA's strategic interest to paper over these differences and behave as if being able to keep the labels was enough, because it's DA who has departed far from the historic norms. He wants to carry those who still hold them with him into embracing Darwinism, and highlighting the other adjustments they'll need to make further down the road won't suit him. It's in AM's interests and mine to point the gaping chasm between him and them out. DA basically de-historicises the story of redemption with a sharp dualism. In the Bible, man is the climax of creation and its destiny is integrally tied up with his. In DA's reconstruction, the physical side of existence began, carried out after the fall and will to the end basically unaffected, until at last Jesus replaces it with something completely different, dying in a Gnostic-style redemption in order to release us from the prison of this painful world that the Father made into a better one that hadn't been tasted before or even anticipated until he came and told us about it. In the Scriptures, the Creation itself falls because of Adam's sin, bringing in pain, suffering and death, and Christ dies physically in part to redeem, recover and glorify this physical creation. It is not evangelical theology to paper over that yawning gap by applying the trite label "a historical fall" to them both. But we pass on.

Points Of Difference

Where we differ is that McIntosh believes in a worldwide flood, whereas I believe in a local flood (the Old Testament often refers to the 'whole earth' or to the 'whole world' as relating to the local extended area; e.g. 1 Kings 10:24; Jeremiah 51:41; Lamentations 2:15; Ezekiel 34:6; Habakkuk 1:6).

Interestingly, DA nowhere in his book actually addresses the Biblical case for a world-wide flood; there are simply a few scientific ones scattered statements here and there. There is no systematic consideration of the question anywhere. This is part and parcel of his general refusal to engage actual creationist arguments (there being precisely zero references or footnotes to any contemporary creationist author or publication in his book), because he wishes to maintain a superior aloofness. This sentence, in this letter,

is the first time I recall coming across DA making a Biblical argument against a global flood (the ones in the book I recall were based on reconstructions of history, e.g. based on what it is supposed we can deduce from chalk deposits).

It is a shame that we only have one sentence of argument from DA on this subject, but this rather trite dismissal misses the following points:

- All the verses that he quotes above come from the Old Testament after the crucial chapters of Genesis 1-11 - the "universal" chapters. From Genesis 12 onwards, the focus switches to Abraham and God's covenant with him, and thus, as it is worked out, to the twelve tribes and ultimately even more narrowly to the line of Judah and David. God's universal dealings cease (not that he ceases to be at work elsewhere in the world in a total way, of course - neither in providence generally, or even in redemption specifically, e.g. the book of Jonah, or Ruth), and the focus switches to his special plan for Israel. The nations in general are left to darkness - darkness that is only dispelled when at long last, thousands of years later, the Christ comes and commands his gospel to be spread throughout the nations. DA quotes from these chapters, but not from Genesis 1-11, the "universal" chapters. In other words, he ignores the context. In Genesis 1-11, we learn about the origins of the whole world; the first man and woman, the first temptation and the first sin and judgment, the first murder, the development of the godly and ungodly lines, the universal judgment of the flood, the origin of the nations around the world at Babel, the beginning of languages, and so on. Here, the context is on the beginnings of the nations, and talk of "the whole earth" in such a context cannot be exegeted by arbitrary appeals to passages in another situ.
- The account of the flood in Genesis 6-8 does not simply use an expression such as "the whole earth" once, but piles them up. There is repetition, there is emphasis and there is variation. In short, there are a range of techniques employed to make clear what the author's intention is to teach us. DA ignores all these literary clues - they don't suit his purpose.
- The last of the citations that DA gives, from Habakkuk 1:6, is not an example of what he is looking for - "the Chaldeans... shall march through the breadth (merchab) of the land (erets)". Here in context, "erets" is clearly rightly translated as "land" and is a straight reference to the promised land of Canaan and its invasion by the Babylonians, not to an indefinite extended (but localised) area. I don't know what translation DA was relying on for this one.
- There is no reason to insist that Jeremiah 51:41 or Lamentations 2:15 are localised. It was quite literally true that Jerusalem was the joy of the whole earth. It was an essential truth of the Israelite faith that their God was the universal creator, and had chosen only Israel and only Jerusalem above all the nations and cities of the entire created world. This was not a localised or relative truth. Indeed, that's one of the points of Genesis 1-11 - to remind Israel that its God was not a localised deity, but the universal Lord. I wonder what DA actually means by alleging that these statements were intended to be understood only in a localised sense as if Jerusalem was only special in a restricted eastern context... is he actually saying that somewhere else, on another continent perhaps, there was another people and nation that God had chosen too? Perhaps Joseph Smith really was on to something? :-)
- Ezekiel 34:6 is clearly a poetic and indefinite reference, not directly to any particular local territory at all: "My sheep wandered through all the mountains, and upon every high hill: yea, my flock was scattered upon all the face of the earth." The prophet does not intend to identify particular mountains and specific hills any more than he believes that God's people were literally sheep. In the historical sense, possibly this is a reference to the exiles of the northern kingdom some time before and more lately the south in Babylon. That is the ultimate referent of Ezekiel's words, but the poetic metaphor is meant to be understood through this lens, not literally read as if it were not poetic at all. This is not a proper parallel to a historical narrative such as Genesis 6-8.
- DA doesn't anywhere consider the point that the Hebrew *erets* covers a wide semantic range, and can be translated world, earth or land, depending on the context. Hence it can refer to the whole globe as in Genesis 1:1 ("In the beginning, God created the heavens and the *erets*" - we presume DA doesn't merely hold that to be teaching that God only made the Middle East...), or at another extreme simply to a specific country (e.g. Genesis 41:55, "... all the *erets* of Egypt was famished..." - here in fact a metonym is used to put the territory for the people). Context must decide, otherwise you fall into a semantic fallacy, using cases of one illegitimately to determine the meaning of others that appear in quite different settings. I noted in my extended review that

- DA relies heavily on quite a number of semantic fallacies throughout his book. It's one thing to note that the word in the dictionary can mean one thing, but then to use that as evidence that it does mean that in a specific context is simply bogus exegesis, unworthy of a first term seminary student, let alone someone setting themselves up to write books to teach the evangelical world.
- 1 Kings 10:24 is also a metonym. Obviously the "earth" did not seek out King Solomon; there were no clouds of soil or piles of rock forming an orderly queue to come and find him. The meaning is that the inhabitants of the earth did - where they heard of him. In that sense, it is both a local and universal reference; wherever his fame went, people were sent to search him out. In what way, though, this is supposed to be parallel to the usage of the term in Genesis 6-8, is lost on me. Such things need longer to explain than in just a letter in the ET... which is why it's a shame that DA simply ducks such issues in his actual book, whilst finding multiple pages still to discuss in depth such irrelevancies as Gosse's Omphalos.
 - Thus, it is clear that DA here has indulged in "proof-texting" - he has grabbed some similar words out of context, without regard to whether or not they are legitimate parallels, and used them to support a pre-existing doctrine. He has not derived his doctrine from these texts, but simply roped them in to support the existing construct. Proof-texting is right and necessary when done properly... this isn't it.
 - But, having said all of that, I can still concede that the Bible can, in some contexts, use the language in this kind of way, speaking of the "whole earth" when it means less than the entire totality of the globe. I would argue, as I have hinted above, that in such cases there are actual contextual clues, whether in the immediate or the wider context. For example, the wider context of the writings dealing with Paul's ministry means that we know he didn't actually preach the gospel to every living being under heaven - for one thing, Romans 15 shows that he still had plans to visit Spain. Here, the reference seems to me to be another "universal-local"; Paul preached the gospel fully and widely throughout the regions of Asia Minor, such that it was a known and public thing in every place he went. But what is the context of Genesis 1-11, where the flood account appears? It needs a strong argument for DA's view, because the default presumption simply from that context, even before you come to details of the account, is strongly in favour of a global flood. Hence DA's neglect of this question is a major weakness in his case; I noted elsewhere in my review that he has quite a penchant for side-stepping hard and necessary questions in favour of his own chosen issues.
 - When we actually look at the details, we find that the Noachic flood had such features as:
 - requiring a gigantic boat to evade it that took 120 years in construction (don't you think Noah could have moved out of the east with a journey of slightly less than that amount of time if he merely needed to evade a regional downpour?)
 - it killed even the birds and other creatures which could likewise have easily migrated to avoid a local flood, and required them to be on the boat to be saved. When the flood ended, a bird was released, but could not find anywhere to land and returned - perhaps in DA's scenario the problem was the poor thing was just feeling a little weary that day?
 - The flood waters rose and prevailed for 150 days, the whole time that Noah had to remain upon the ark being a whole year, and covering even the tops of the highest mountains. We presume that DA knows that water flows downhill. How can all the mountains be covered in any particular area of the east for such a vast period of time without the flood extending globally or at least across the entire continent, as opposed to DA's mere regional flood? DA's theory would require some kind of enormous basin to contain the flood in a localised part of the east only - but we know that he rejects all such ideas that require any modification to orthodox mainstream scientific thinking.
 - Moreover, God promised never to send such a flood ever again. There have been many immense and catastrophic local and regional floods since. On DA's account, God broke his promise. But when we presuppose the truth of the Bible as the ultimate arbiter of truth, and use it to reconstruct history instead of using a foreign history reconstructed from something else to interpret the Bible, a different picture emerges. This promise means that the Noachic flood must have been immensely greater than any subsequent flood, and so DA's belief must be wrong. Again, he never addresses this argument in his book. The implication of God's post-flood promise is that the flood at least dramatically interfered with the seasons (if they are assumed to have been operating before, which I am not commenting on either

way here). That is not possible though for a local flood; or if the meaning is simply that the localised flood disrupted the seasons locally, then this again leads to the unthinkable conclusion that God's promise was broken.

- Again, DA never addresses the "table of nations" in Genesis 10 or the Babel account in Genesis 11. According to his theory, multiple languages existed long before Adam let alone Noah, and so did the nations. What significance do these chapters actually play in his scheme? It's all very well to promote a general theory that "Genesis is theological, not scientific", but if you want to sustain that argument, then in a 350-page book that concludes that creationism is dangerous and embarrassing you ought to actually find some space to address these historical narratives. Genesis 1-11 records that the nations, such as Egypt (Mizraim), descended from people who came out of the ark. DA's Darwinian dating requires him to believe that Egypt was flourishing independently long before the flood, and does not permit him to believe that the nations all descend from people who were in a localised flood in the east. The bottom line is that ultimately you can't hold both Darwinian and Scriptural orthodoxy, and DA jettisons the latter in favour of the former by treating the Bible in Enlightenment style as purely "private values", "theological truths" for believers, rather than a true and historical revelation from God about the origins of our race.

DA, then, lists the "local / worldwide" difference as a minor point of disagreement, and his position as Scripturally justified. This is a point he never addresses in his book, though, and one as we've seen above of far more wide-ranging significance, if dealt with consistently, than he allows.

Mainstream Science

Quoth Dr. A:

We also differ in that I accept current mainstream science, not uncritically, but all truth is God's truth - whereas McIntosh rejects huge swathes of contemporary science, including that which establishes beyond any reasonable doubt the great age of the earth (about 4.6 billion years old) and our own common descent.

It is of course a truism that Professor McIntosh, as a creationist, is out of step with what is acceptable thinking in the mainstream scientific community as regards origins. Dr. Alexander, however, goes further than this and borrows an argument that previously I'd only seen in use by the "village atheist" crowd. That is, that the Darwinian theory and theories about the age of the earth somehow represent "huge swathes of contemporary science". This is pure rhetoric, and pure rhetorical hogwash at that. I type this on a laptop computer, with its intricate maze of transistors, liquid crystals, magnetic disks and so on, connected to a mobile phone which beams its packets to the nearest mobile mast... which beams it on, eventually via the satellites that connect Kenya to the rest of the world, along various fibre-optic pipes, and through all the chain of equipment until eventually it arrives in your room. I may not be a professional biologist, but trust me: Darwinism has nothing to do with any of this. And that's the story throughout. Even in biology, Darwinism as Darwinism has proved to be a theory of no practical use - the so-called now rejected "science" of eugenics being its main contribution to history. Descent with modification is a fact with practical implications; but Darwinian speculation about the supposed unlimited potential of that modification over periods of millions of years in the past has proved remarkably unfruitful for a theory that's alleged to be true. Neither does speculation about the age of the earth have any practical value in any of the scientific advances that we enjoy in day to day life. Medicines we take to cure illnesses, the vast reams of technology especially in communication, the blessings of modern transport, and so on... interesting stories about how the Earth supposedly cooled down over a period of billions of years have nothing to do with any of this.

That's why I've only previously heard this argument from Internet atheists before... as someone who did a Masters in a scientific discipline and spent large amounts of time with other scientists discussing our studies, I know that assertions that Darwinism or theories about the age of the cosmos are basically irrelevant to real, here-and-now operational science and rarely either come up for discussion or are assumed as implicit in any practical matter. Perhaps DA made the guess that most readers of the ET will simply take his word for it because they've never interacted in that world. I think he has over-reached himself, because if you want to stake out an influential position in the long run, you need to appeal to the knowledgeable and critical readers, and false rhetoric of this kind will turn them off.

Only Possible Explanation?

Concerning common descent, it's interesting that here in this letter DA says that it is a fact established by "huge swathes" of evidence, "beyond any reasonable doubt". In his book, he seemed to be relying ultimately upon a single argument that was ultimately theological. He argues that similar gene sequences in humans and other ape-like creatures are so similar, including claimed genetic mistakes and unused genetic material, that unless its origin was common descent, God would in effect be deceiving us. I think that argument is rather weak when DA asserts it as the only possible explanation. For one thing, it's a genuine evolution-of-the-gaps argument; genetic material that is presently thought to be the result of copying mistakes or unused may later be discovered to have some function that our present knowledge hadn't equipped us to identify. At that point, DA's argument would vanish. The argument as a whole, though, is weak because in his book DA never compares it to any other alternative (as part of his general strategy of not representing creationist arguments, I think because he wants to give the air of them being beneath his level). There are other alternatives. Man and other creatures may have a similar genetic toolbox because... they have the same designer. Moreover, on the Biblical assumption that that Designer wishes man to investigate and harness the powers of the world that he made, it would be even less surprising. If God wants us to investigate and harmonise creation, it would be massively harder if every living entity was constructed along fundamentally different principles. The fact that they're constructed on a shared set of principles is a testimony both to his wisdom and to his desire that we should to some extent investigate, understand and harness what he has done. Moreover, the Bible teaches that the creation physically fell, because God cursed it when man sinned. That had some impact or other on actual biology, though it is not the Bible's purpose to explain things on that level. If we are looking at things on that level, though, why should it be unreasonable to believe that God should have brought about similar defects in DNA in similarly-constructed creatures? What is the theological reason why God must have, as Dr. Alexander is insisting, made such genetic changes at the Fall in arbitrary or random ways? Whether the lines on which I'm speculating here are correct or not is not important - the point is that DA's assertion that there is no possible explanation either existing or even possible for what he sees in DNA except man's common descent from other ape-like creatures is simply bluff.

There is another aspect of DA's argument here that can be played back against him. In his book, DA attempts to argue that information theory should not be applied to biology, and even that biology should be allowed to have its own definitions of information - and that attempts to apply information theory represent misunderstandings by engineers and computer scientists. This is an exceptionally weak argument which itself represents a misunderstanding of and rejection of mainstream science. Information theory is universally applicable, and there is no justification for someone to put their hand up and say "you can't apply that here!" Information is a universal fundamental, and whether the encoding takes place on paper, on computer disk, or in DNA, it must apply everywhere or not at all. The point is that the application of information theory to biology and DNA leads to the necessary conclusion that DNA is an encoding by an intelligent agent, a conclusion which fundamentally contradicts Darwinism.

All Truth Is God's Truth?

The larger point, though, which DA never discusses in his book but simply assumes, as also in this letter, is his overall approach to Scripture, revelation and authority. You need to note here exactly what ideas are being packed into the slogan "all truth is God's truth". In itself, it's unobjectionable. But if you tease out the strands of what DA means by it, as hinted here and shown more fully in his book, it's simply not Christian.

DA's doctrine of authority, science and Scripture is basically a baptised Enlightenment-mode of thought. Scripture is theological, science is historical, and the twain shall scarcely meet. When Science speaks about matters in its own domain, it speaks with authority. It is effectively a second book of revelation, complementary (not competing) with the written one, and each has its own domain. In particular, Scripture cannot speak to correct science, because Scripture's domain is different: value-laden interpretations of the world and the physical facts that science unearths. And to Dr. Alexander, science speaks with authority when the peer-reviewers, applying the objective and unbiased process of impartial scrutiny, accept a theory into the mainstream consensus. Predictably, Dr. Alexander never addresses the obvious historical objection to this last idea - all the junk science that has at one time or another been mainstream, such as eugenics which we mentioned above. What you won't find anywhere in DA's book is an explanation that Genesis also speaks directly to historical matters, and that when it does so it speaks

with unrivalled authority, such that any conclusions of contemporary scientists, no matter how numerous and how authoritative the journals they publish it in, must bow before it. That's because DA doesn't believe that idea - rather, in his book, he explains that Darwinian theory is the background that we must read Scripture against if we wish to harmonise it with contemporary science.

So, "all truth is God's truth" is in itself, one of God's truths. But on DA's lips, what it means is that the consensus of contemporary science ought to be treated by us as if it were revealed from heaven, and hence we ought to patronise fellow-believers in the manner in which Dr. Alexander does here. It is interesting, though, to note that this letter continues the theme in the book: that the truth is established mainly by science. This isn't a Biblical argument that DA's making: it's simply that mainstream science says so.

On scientific questions McIntosh cites only authors who are not published in peer-reviewed scientific literature, whose views are rejected by the scientific community, not because the scientists are 'anti-God' but because the views lack good evidence. Readers interested in the age of the earth may download a free Faraday Paper (No. 8) from www.faraday-institute.org, Faraday Papers Folder) by Prof. Bob White FRS, an evangelical believer who is Professor of Geophysics at Cambridge University.

Here DA repeats his point to underscore it. So there's no excuse for not identifying the lines on which his thought runs: mainstream science is itself an all-but infallible authority, and there's no need to launch any actual Biblical response to Professor McIntosh's Biblical argument - the fact that contemporary journals don't accept it as the consensus is sufficient repudiation. DA here makes a pure appeal to authority - those in the seats of power in the mainstream scientific community say so, so you'd better toe the line or I'll patronise you for being an idiot, even should you yourself be a Professor! DA has so folded this idea of science's basic infallibility into his axioms of thought that he doesn't think this should need explaining, even to readers of so conservative evangelical a newspaper as the ET... when this can happen then truly the Enlightenment is still riding strong. In this letter, as in the book, DA does nothing to hint that he's aware of the idea that scientific research is done within paradigms, and is not simply a straight-forward simple fact-based procedure. Mainstream scientific journals reject ideas that Professor McIntosh promotes foundationally because they reject the Biblical paradigm that the research is conducted within. "Evidence" is not a simple up and down matter - it must be interpreted. A presuppositional Christian, such as AM, asserts that, especially when dealing with a matter such as origins, our paradigm must be explicitly Christian. That's anathema to the secularist thinking that dominates the academy, and so hence the chasm between it and Christian orthodoxy. DA, though, here promotes pure Dawkins-style Scientism - the idea that science is simply a paradigm-free, unbiased inquiry into neutral facts and proceeds simply based upon evidence.

To save you the trouble, dear reader, I did download and digest the paper that Dr. Alexander refers us to. Its thought is the same as DA's. There is no discussion of the relationship between Scripture and other supposed authorities, or a comparison of their relative fallibilities, or a Christian view of authority, etcetera. Nope - it's asserted that science proves this and that, that therefore the earth is very old... and now let's hunt for a way to interpret God's word (which is after all a theological text, not one that deals with real-world facts of history) that agrees with this assured result of modern man's cleverness. Science first - then we'll see what we can do with the Bible. That's exactly the wrong way round, as far as evangelical religion is concerned. As with DA's own writings, there's also a few arguments and bits of rhetoric borrowed from the atheists - Christians who disagree are termed "fundamentalists", and creationism is falsely said to be a late 20th Century American import (in fact the oldest anti-evolution society (now known as the Biblical Creation Society), is British... and the two most well known creationist organisations today, Answers in Genesis and Creation Ministries International, both of which DA avoids any mention of in his book, originated in Australia). Oh come on, can't you do better than this?

Misrepresentation?

McIntosh claims that I maintain certain positions in my book which in reality I definitely reject, which also make me wonder whether he has actually read the book!

I remarked a few times during my extended review that DA often seems as interested in giving off an air of intellectual superiority, that creationism is beneath his level, as much as he is interested in actually

interacting with brethren who honestly disagree with him. This was evidenced mainly in the fact that in 353 pages he references precisely one creationist... who's now dead. Current creationists, their books, journals or other writings: zilch.

Given that Professor McIntosh's contains statements that only make sense if the whole book has been read ("The author makes no reference to those who have written on the biblical arguments concerning this matter, such as Douglas Kelly in his book *Creation and Change*" and specific references such as "his bald statement on p.242" or "contrary to Alexander's assertions on pp. 138-139" or "He even suggests (p.275)"), this sentence from Dr. Alexander comes across as being empty polemic - and a cheap shot at that. More basically, the review begins with the words "I have just finished reading Denis Alexander's new book" which makes the purveyor of such cheap shots look rather silly... or perhaps the Doctor didn't actually read the review? :-) But passing on... what actually are these positions?

For example, he suggests that I 'read' evolution into Scripture, whereas I spend a whole chapter explaining why biblical texts need to be understood according to the literary style they represent, not as if they were scientific texts. Scientific literature as we know it today, with its highly specialised language, did not exist when the Bible was written, so to seek to press the language into that literary genre is an abuse of Scripture. Of course evolution is not taught in the Bible, any more than relativity, thermodynamics or quantum mechanics.

Here, Dr. Alexander simply talks past his reviewer. Nowhere does Professor McIntosh's review state the idea that Dr. Alexander refutes here: i.e. that he "reads evolution into Scripture" in the sense that he says that Scripture actually explicitly teaches evolution as if it were scientific literature, using specialised language like textbooks on thermodynamics. That's a straw man; there's not a word in AM's review that approaches suggesting that the Bible teaches matters like relativity or quantum mechanics. The false dichotomy that Dr. Alexander makes in reading Genesis between "science" and "theology" or between science and history, is the one that the Professor actually took him to task for - to simply repeat it in the answer will only give more ammunition should the Professor wish to charge him with not having properly read his review. It smacks of a "canned response". That Dr. Alexander actually does read evolution into Scripture, in the sense that AM meant, is stated baldly on page 232, where after reviewing the present mainstream scientific (Darwinian) thinking on the history of man, he then goes on to begin considering the Scriptural data by stating:

"It is against this cultural and historical background that one needs to consider the early chapters of Genesis."

The idea that one should - indeed, must - begin with fallen man's fallible speculations about history, and then read God's inspired account against that background, is precisely what "reading evolution into Scripture" means. Methinks that DA knows he's guilty here, and simply answers a different point instead because he suspects that the ET's readers are too conservative to follow him if he spells out his full position candidly.

Aborigines

McIntosh also claims that my book suggests that some humans may still languish outside the God-called community of humanity, whereas I make precisely the opposite point (p.238) - that God graciously bestowed his image upon the whole of humankind with Adam as the federal head

On this point I think there are faults on all sides. Having read through Dr. Alexander's book more than once myself, and having read other reviewers, I think Dr. Alexander himself is responsible for a lack of clarity - or rather, a confused concept that inevitably has generated confusion in the reviewers as they try to piece the bits together. It seems that, pulling everything together, Dr. Alexander teaches that: a) As required by contemporary scientific orthodoxy, human beings had existed in basically their present form for many tens of thousands of years. b) But Adam and Eve were most likely Neolithic farmers in the east, around 6-8,000 years ago. These two points have logical implications which Dr. Alexander unflinchingly follows: i) Adam and Eve were not the first humans, but were descended from a long line. ii) Likewise, not all humans are descended from Adam and Eve; in particular, Australian Aborigines were in Australia for long before they were around and there's no reason to think any interbreeding could have occurred

given the histories, timescales and distances involved. Thus iii) God's image is some kind of super-addition to essential humanity - i.e. something that humanity had existed for a long time without before it was conferred first on Adam. This leads on to the next teaching point, c) that God, at the time that he bestowed his image on Adam, also "graciously" (Dr. Alexander IIRC uses this word, though not in a proper sense, as Biblically grace implies the existence of demerit, i.e. sin) conferred it upon the rest of humanity around the world too.

What is this image? DA doesn't give a full answer, but says that there are two important aspects for his purposes (p192-3) - the delegation of authority and the potential for relationship with God. So, when God made Adam (or rather, when he was born to his parents or had grown to an appropriate age afterwards), God extended a benefit to the whole of humanity as well as to him. Dr. Alexander then goes on to ask what the Fall would have meant for those, such as the Aboriginals (p275) who were part of Adam and Eve's family - and concludes that we can have no real idea. It is this that Professor McIntosh understands as suggesting "that some Australian Aborigines may still languish outside the God-called community of humanity because they are not descendents of Adam and Eve". I presume that the logic here is that as they were perhaps (DA's suggestion) not affected in any practical way by the Fall, by logical consequence, neither are they subjects of the redemption from that Fall achieved by Christ - AM doesn't make it explicit. If they are not part of the fallen creation, then presumably not part of the redeemed. I'm not sure I'd have imputed this line of thinking to DA though; elsewhere his teaching implies that he doesn't really see Christ's work in terms of leading to a redeeming of creation so much as in terms of replacing of it (here AM's imputed more orthodoxy to DA than he should have done!). What exactly DA does mean by this speculation and how it is systematised in his thinking is not clear, because he doesn't really clarify it - he does, as he states in this rebuttal, teach that the divine image, whatever its exact content, was extended to Aboriginals; thus, by implication, giving them the capacity for relationship with God. Hence on the precise point itself, I agree with him that AM has missed an element of his thought and drawn a conclusion that he doesn't hold.

Why Did Jesus Die?

McIntosh asks, 'Why did Jesus die physically if the wages of sin is not physical death?'

This is a question which also arose strongly in my own review. It is a natural consequence of Dr. Alexander's altered doctrine of the Fall, which he makes an invisible, spiritual event. He denies that it had any impact on the workings of the physical creation, a denial that he has to make because Darwinian orthodoxy will not allow that the creation suddenly came into bondage to decay only a few thousand years ago. According to Darwinism and hence according to Alexander, all those things that Christians have historically identified as being part of the deleterious results of Adam's sin (thorns, pain, suffering, death, etc.) are original parts of the cosmos, not later intruders. Hence the question arises; if the Fall was not a physical event, why is redemption (the incarnation, Jesus' sufferings, death and resurrection) so physical? Has Alexander's Darwinism not made the essence of the gospel incoherent?

The answer is in Hebrews 9:11-28, and the fact that Jesus died to save us from eternal separation with God, the 'second death' (Matthew 1:28; Revelation 2:11).

Again (and as commonly done in the book as well as in this letter), Alexander simply ducks the question and answers a conveniently different one of his own devising. The question is highlighting the physical nature of Jesus' death; Alexander instead merely states why Jesus had to do something to save us. The answer may well be in Hebrews 9... but what is that answer, Dr. Alexander? How does it relate to the question you were being asked? Just how and why did Jesus experience physical death in order to liberate us from a fate that you see only in terms of the non-physical?

Paul in Romans (6:21-23 and other chapters) is speaking of spiritual death. As Jesus explained to Nicodemus in response to his question (John 3:4), rebirth is spiritual, not physical (v. 5).

Here in his letter, as in his book, Dr. Alexander introduces the strong dichotomy which he relies upon to evade the fundamental problem with his teaching: that between "physical" and "spiritual" death. He merely insists that this idea is what is being spoken of by this or that Bible passage. The point is, though, not whether you can super-impose this idea upon passages of Scripture as DA does... but whether it actually reads out of any passages themselves. Here's Romans 6:21-23:

What fruit did you have then in those things of which you are now ashamed? For the end of those things is death. But now being free from sin, and having become servants unto God, you have your fruit unto holiness, and the end everlasting life. For the wages of sin is death, but the gift of God is eternal life through Christ Jesus our Lord.

Where do these verses teach Dr. Alexander's particular distinctive doctrine, namely that the Fall was a non-physical event, and that physical and spiritual death must be sharply distinguished? Of course, they don't. Dr. Alexander is guilty of reading a text through his own pre-supposed hermeneutical grid. His doctrine does not read out of the text - it has to be read in.

The idea that Jesus, in John chapter 3, was teaching or even implying to Nicodemus that the Fall was an event without physical consequences is exegetical madness. The idea is not even in the remote horizon of the exchange. Here, DA has plucked a verse wildly out of context to suit his purpose. Nicodemus thought of redemption in earthly and political terms - Israel being liberated from the Romans, and a new kingdom like David's being established. He needed to see that the true enemies of God's people were spiritual - sin, Satan and death - not military. He needed to see that he was in bondage to sin and that this was a more ultimate reality than Israel's political subjugation. He stumbled at Jesus teaching of the need for inward renewal and cleansing. I don't personally think that his question about being born again from his mother's womb was intended by him to be taken literally - it was simply a way of expressing his surprise at Jesus' teaching and pushing him to clarify what he meant. Alexander, though, rips this all out of context and makes Jesus teach not merely that we need inward and spiritual renewal by the Holy Spirit, but into a denial that man dies because Adam sinned! The fact that his doctrine can only be supported by ripping passages out of context in this way, and not by direct appeal to any texts where the subject is being addressed directly shows us the lack of Biblical support for the idea.

Gnostic Resurrection

DA then proceeds to state his neo-Gnostic view of the resurrection and the future state:

We have to physically die to fulfil God's purposes, for 'flesh and blood cannot inherit the kingdom of God, nor does the perishable inherit the imperishable' (1 Corinthians 15:50).

In this verse, Paul gives one of the subsidiary reasons why our resurrection bodies must differ in some ways (whilst still having continuity - see earlier in the chapter) with our present bodies. The state of glory is of an order which we can hardly yet imagine. To enter it, we must be changed. This change, though, does not actually necessitate death; Paul makes that explicit by saying (emphasis mine): "We shall not all die, but we shall all be changed" (verse 51). Those who are still alive when the Lord returns shall not go through death, but shall be changed without it into a fitting state for glory. Hence there is no necessity for death for us to enter that state, contrary to what DA says. I label DA's view "neo-Gnostic" because his denial of a physical Fall leads him to effectively deny that Christ's physical death is related to our physical redemption which culminates in physical resurrection and transformation. He rather views this present mode of existence as being a classic Gnostic prison, and Jesus liberates us from it - he doesn't so much redeem and glorify a Fallen world as take us out of it into something else of a totally different nature.

DA's view makes no sense of the whole thrust and purpose of 1 Corinthians 15. There must, contrary to the deniers at Corinth, be a resurrection because without it Jesus' victory over sin would be incomplete. The first Adam through his sin caused us all to die (Romans 5:12-14); to reverse that, Jesus himself died and rose, and must raise us too. His physical resurrection is the great announcement, realisation and proof that the consequences of Adam's rebellion have been overcome. His physical resurrection is such a proof precisely because Adam's rebellion brought in physical death. Cut that vital link in Biblical theology, and you're left floundering around to explain all of this. DA never answers the pertinent questions raised by McIntosh's review. Why did Jesus physically die? Why did his punishment include physical sufferings if physical sufferings are not in fact in this world as a consequence of sin? Why would he endure such a penalty if it never was part of the penalty God imposed? Just why did Jesus enduring physical death save us from a spiritual separation? He doesn't answer them because ultimately the truncated doctrine of redemption which his Darwinism leads him to... can't.

When Arguments Fail, Try Polemic

Young earth creationism causes serious pastoral problems.

This mere assertion is not contained in Dr. Alexander's book, or expanded on here, so we can only speculate about what these pastoral problems are. I suppose, based upon the general tenor of his book that DA would say that creationism pits science against faith and forces believers to choose between two truths. Whatever the precise line of argument, though, it's moot. If creationism is true, then teaching it may indeed cause problems (especially with such as DA teaching so dogmatically that it's false) but it's our duty to believe and proclaim whatever God has made known. If it is false, then to say that spreading it causes problems is telling us nothing new. Either way, DA adds nothing here to his argument except polemics. As DA's never taught creationism, we can only speculate as to what experience he has that underlies this assertion.

There are atheists in the scientific community (some very high profile) who used to be practising Christians in their teenage years, but who were turned away from the faith because their church pitted science against faith.

DA states this in his book too. Who are these atheists? Where is the documentation where we can follow these assertions up? Either way, though, this statement again adds nothing to the argument. If there are atheists who were turned away by creationism and creationism is true, then they were turned away by the truth. Are we supposed to preach lies in the hope that it will persuade people to make professions of faith? If on the other hand creationism is false, then this argument is redundant - we all agree that in that case it shouldn't be preached. Again, more polemics, intended simply to intimidate creationists to pipe down on the basis of undocumented authoritative-sounding assertions, rather than on the basis of argument.

Since DA's played this card, though, let's see if he's willing to take on a wager. Suppose that we can count up the number of atheists who turned away from a profession of faith because their church taught them that they had to accept creationism as true, and who will freely confess that, after it's been explained to them that Darwinism and the Bible are fully compatible, they will gladly return to Christianity. Suppose on the other hand that we count up the number of atheists who won't accept Christianity because they find that theism actually really is incompatible with Darwinism, and therefore they judge Christianity false because they think Darwinism is true. Which category's going to have more people? DA may be able to do the mental gymnastics to persuade himself that the Bible and Darwinism don't contradict each other a hundred times. I'd be pretty confident on the other hand, though, that he's in a slim minority. As the expression goes: a simple man can persuade himself only of some things; but an educated man can persuade himself of anything.

Preaching the gospel is made much harder when it becomes associated with beliefs, such as a young earth, which most people find ridiculous.

Again, same empty argument. If creationism is true, then this is something DA will just have to put up with - unless he believes that we should actually trim and prune our beliefs according to what our present society deems acceptable. This argument can also be reversed. DA's the one trying his darndest to make belief in a young earth seem ridiculous - which he does throughout his book using the method of never representing or interacting with actual creationist arguments, but by setting fire to a succession of straw-men. If he's actually concerned about the effect on preaching the gospel of making creationism seem ridiculous, why is he doing it?

Do people really find the idea of a "young" earth ridiculous? The earth in fact can only be as young or old as it is. It can only be termed "young" in relationship to something else. In this case, it's supposed to be "young" in relation to the telephone-number figures circulated by such as DA. I seriously doubt that more than the tiniest fraction of people have ever looked into the arguments for or against the age of the earth, or considered how to evaluate the two competing paradigms. (DA himself never approaches the matter in terms of paradigms - it's simply infallible, objective science says so...). They simply accept it on authority because people like DA say so; just as they accepted eugenics, geocentrism and other mistaken science in previous generations. This argument is ultimately a naked appeal to authority.

Still Friends

I would urge Christians to hold science and faith together as the friends they have traditionally been, not force them apart for biblically unnecessary reasons.

As the letter comes to a close, DA is really piling up the vacuous polemic. Of course, no creationist actually believes that science and faith aren't friends. They simply dispute whether Darwinism and faith are friends, or whether Darwinism and science are. Whilst in his book he falsely, without providing any references, teaches us that creationists claim that Genesis is written in the genre of a modern scientific journal, the reality is that it is DA who is forcing a dichotomy where none exists by forcing us to choose either between choosing to believe in what he terms "science", or to read the book of Genesis as self-conscious, accurate history. DA's reading forces us to accept it only as "theology"; an interpretation of events, but not actually recording events in a historical way. DA forces us to choose between evangelical Bible interpretation, or having his like poor thinly-veiled contempt down on us and accuse us of all manner of sins, pastoral problems, spoiling evangelism, spoiling the relationship between science and faith, etcetera. Still, that's the way it is - and we have to choose our lot.

I also hope that readers will not accept the representation of my book that McIntosh provides, but actually read Creation or Evolution - do we have to choose? for themselves.

Editor's note: Our reviewer, Andy McIntosh, will publish a reply to Dr. Alexander's letter in February's ET.

The End!