

The Biotic Message: Evolution versus Message Theory

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This book is an original, valuable contribution to creationist thought, especially in the area of biology, although the author touches on other fields.

The theme permeating the book is that a supernatural creator has placed a pattern in living things (and their fossils) which defies a naturalistic explanation and points the observers to the one intelligent designer. This is **The Biotic Message**: the unity in biology tells us that there is but one Creator, and the pattern of diversity defies any consistent naturalistic explanation.

'Similarity makes life look like the work of one designer, while diversity makes life difficult to explain by naturalistic processes' (p. 37).

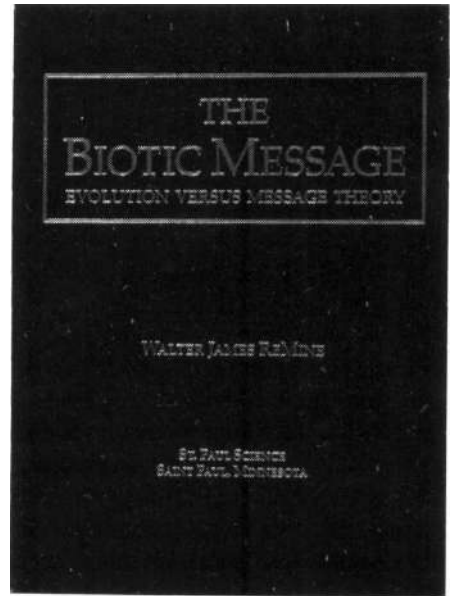
ReMine highlights area after area of evolutionary thought where hypotheses are constructed in such a way as to be untestable (that is, not scientific), or illogical. In the preface, ReMine says that he pursued the hobby of magic (illusion) for many years and that this prepared him well for the job of exposing evolutionary illusions. He does this masterfully as illusion after evolutionary illusion is exposed. A simple example of evolutionary illusion, based on the misuse of terminology, is the statement by evolutionists that 'fish gave rise to amphibians and amphibians gave rise to reptiles'. Such a statement gives the illusion of phylogeny — that there is here an evolutionary sequence — and yet no sequence has been identified. Which species of fish gave rise to which species of amphibian? And

which species of amphibian gave rise to which species of reptile? And which fossils show the transitions?

ReMine begins with more general arguments against naturalism in science. He shows how scientists can be inconsistently selective in what they allow as 'science'. Naturalists say that science can say nothing about an intelligent cause for the universe/life, etc. However, these same naturalists will acknowledge that science can identify human artefacts in archaeology, because they have the characteristics of an intelligent, as distinct from natural, cause. Science can also detect fraud (for example, Piltdown Man), which has an intelligent unseen cause, and can recognise other patterns in nature that could not have a natural cause — that is, they must come from an intelligent (and unseen) cause — the SETI programme is tacit acknowledgment of this.

Testability/falsifiability is widely recognised as the major criterion for science. A theory must also have explanatory value. Evolutionists will often charge that creation theory is unfalsifiable but then argue that it is falsified. They will also formulate evolutionary propositions in such a way that they are a tautology (a truism), or metaphysical, or lame. ReMine illustrates this with the various formulations of the anthropic principle:

- (1) Tautology: the universe has the (observable) properties for life because we live (and observe). ReMine says (p. 174) that '*a tautology is a definition masquerading as an explanation*'.



- (2) Metaphysical: there are an infinite number of universes unlike our own. We are in one of the ones suitable for life (this is untestable — how could you test whether there are other 'universes'?)
- (3) Lame: the constants take on the values restricted by the requirement that there are sites where carbon-based life can evolve and by the requirement that the universe be old enough for it to have already done so (after Barrow and Tipler¹). This statement explains nothing and is therefore lame.

ReMine points out that science is limited — using Godel's Incompleteness Theorem, which basically says that no body of mathematical knowledge can be self-contained or self-authenticating. In other words, there are unprovable true theorems and man can never have all the answers.

So knowledge cannot be self-referencing. By extension, this means that science cannot fully understand nature in terms of nature. If this is attempted, we can expect contradictions and paradoxes. This, I believe, is another way of saying Romans 1:20-21.

ReMine also argues from the 'Big

Bang' and the laws of thermodynamics for an origin to the universe. The universe is not eternal; it had a beginning. Anything which has a beginning has a cause and therefore it demands a creator. Here I would prefer that he stick to the laws of thermodynamics alone to demonstrate this. Accepting the Big Bang model gives too much ground to the naturalists and implies that the billions of years are real.

ReMine's treatment of the origin of life is good. I particularly liked the way he dealt with some of the bluffs of evolutionists who try to dilute the improbability argument with irrelevant analogies. For example, the exact arrangement of the cards in a deck just after it is shuffled is highly improbable, but nevertheless an improbable arrangement happens every time. This confuses the point entirely. The question is not 'what is the probability that life arose?' but 'what is the probability that life could arise naturalistically, without the involvement of an intelligent creator?'. Any arrangement of cards is as 'good' as any other and there **will** be an arrangement of cards. However, with the DNA code, a particular arrangement is required. If we got an arrangement of cards with an orderly pattern (Ace, King, Queen, Jack, etc.) we would conclude that someone had 'stacked the deck'; that is, an intelligence was responsible because such an arrangement is so unlikely from random shuffling (the probability of such an arrangement from random shuffling is less than 1 in 10^{67}). Many a card cheat has paid the price of this powerful evidence of intelligent input! Evolutionists want us to believe that something far less likely than the orderly arrangement of cards happened without intelligent input — and they use irrelevant analogies to try to avoid the argument.

ReMine also points out that evolutionists claim that the biologic universals such as RNA, DNA, ATP, etc. are evidence for the common ancestry of all things. However, evolution never **predicted** that life

would arise only once and only based on the DNA-protein code we have. Furthermore, they have rejected each of the biologic universals in attempts to build origin-of-life scenarios (for example, the 'RNA-first' idea), showing that the universality of the DNA-protein system is definitely not a prediction of evolution. However, it is a prediction of 'message theory' that there would be a unifying principle underlying all living things which shows that there was only one message sender (creator). Furthermore, the DNA code defies a naturalistic explanation; no wonder that many evolutionists have tried to exclude the origin of life from debates with creationists.

SURVIVAL OF THE FITTEST AND NATURAL SELECTION

ReMine labours the tautological nature of 'survival of the fittest', or natural selection, as the evolutionary explanation of adaptation and design. I found this a bit tedious. He shows that efforts to define it in a testable/falsifiable way result in either metaphysical or lame formulations which may sound testable/falsifiable but in practice are not, or have no explanatory value. ReMine describes this exercise as '*the intellectual equivalent of a carnival three-shell game*' (p. 460).

The formulation of special definitions results in many disjointed, conflicting theories parading as a unified theory. For example, in one context evolutionists will argue that female mosquitos are bigger than the males because the female is responsible for egg-laying and the male only has to contribute a little sperm, so bigger females make for greater reproductive success. But in another context, evolutionists will argue that male lions are bigger than the females because the bigger males have greater dominance over other males in the mating game and therefore they will mate with more females and pass on their genes. Both stories sound plausible in isolation, but they 'explain'

contradictory states of affairs and so have no value in prediction. Such special definitions, or story-telling, do not add up to make a valid scientific theory. Special definitions, which are measurable, testable and explanatory, are only true for special cases and do not provide any unifying theory to explain adaptation in general.

The arguments woven into the discussion of natural selection are fascinating: the way in which evolutionists choose from a smorgasbord of competing and conflicting theories in attempts to explain adaptation.

STORY-TELLING IS NOT SCIENCE

The chapter on Darwinian Scenarios (6) was especially entertaining. Here ReMine shows how Darwinism is story-telling. Darwinists will be very inventive at story-telling when it suits them, but also seem to lack imagination when it suits them. Riddiford and Penny's challenge² for creationists to find a non-adaptive structure in nature to disprove Darwinism — such as a 'bird's nest' structure built into an elephant's back — is a case in question. ReMine shows how their challenge is quite hollow. An adept Darwinist would have no trouble thinking of reasons for this structure being adaptive (that is, it benefits the elephant and therefore would be selected by natural selection). And ReMine provides some amusing suggestions in the style of Darwinists. At every turn, ReMine shows how evolutionary theory predicts nothing, but is used after the fact to 'explain' adaptations with 'just-so' stories and that

'most any circumstance can be accommodated by evolutionary scenarios' (p. 149).

The various attempts to explain the advent of sexual reproduction illustrate evolutionary story-telling beautifully (pp. 196-206). In the Darwinian struggle to pass on genes to the next generation, asexual reproduction is twice as efficient as sexual because with the latter your genes are diluted

by your mate's. Adding other disadvantages (such as sharing food resources with 'useless males') results in more than 50 per cent cost of sexual reproduction. Why then did sex arise? The conflicting story-telling makes for interesting reading. ReMine argues that sex has two features necessary for the biotic message: substantial presence throughout various life-forms (the unifying effect: one designer); and it resists a naturalistic explanation.

TESTING EVOLUTION?

Various Darwinists have proposed tests which could refute evolution. For example, Darwin said that an example of truly altruistic behaviour would disprove the theory. However, dandelions produce nectar, which benefits insects, but have no need of the visits from the insects because dandelions reproduce asexually. But then the story-telling comes into play to rescue the theory: dandelions originally reproduced sexually so produced nectar for their own benefit but have since lost the need for it!

Another example: Michael Ruse argues that organisms could not evolve a second time, and if they did, it would refute Darwinism (p. 151). But some foraminifera have re-appeared in the fossil record after disappearing, and knowing this, Schafersman says that '*evolution does not assume or require nonrepeatability*'. Evolutionary theory is so plastic it can conform to any data.

Natural selection is highly efficient or inefficient as the case demands: it could not get rid of the wasteful production of nectar by dandelions, but it supposedly got rid of the keen sense of smell of apes as they evolved into humans (not to mention the ability to synthesise ascorbic acid).

Bacteria, fungi and protozoa have cellulase enzyme which allows them to digest cellulose, one of the most abundant compounds in nature. Multicellular organisms lack the ability to digest cellulose. If micro-organisms gave rise to multicellular organisms, why did they lose such a useful ability? Or, if 'convergences' are so easy for

evolution to produce (for example, the thylacine, or marsupial wolf, and the placental wolf, marsupial mole and placental mole, flying phalanger and flying squirrel, etc.), why has not the ability to digest cellulose evolved in multicellular organisms? ReMine argues that this pattern is exactly what one would expect from a biotic message sender: it makes sense ecologically, because plants need to be protected from over-grazing by multicellular animals to preserve ecological balance in the system of life. But why should evolution stop multicellular organisms from developing a cellulase?

Convergences are consistent with 'message theory', says ReMine, because they unify life, they thwart phylogeny and they resist naturalistic explanation (p. 264).

POPULATION GENETICS, HALDANE'S DILEMMA AND THE NEUTRAL THEORY OF EVOLUTION

These chapters (7-9) were probably the highlight of the book for me. ReMine does a masterful job of exposing the fallacy that population genetics supports evolutionary ideas. It is quite the contrary. Population genetics does not explain adaptation; it describes changes in gene frequencies, given a certain 'fitness', and fitness cannot be measured before the event. If we have certain stable allele frequencies in a population, we can calculate from population genetics the 'relative fitness' of each allele, but this is then a tautology: fitness is defined in terms of survival. Survival does not explain fitness/adaptation.

The theorems of population genetics are mathematical constructs which say nothing about evolution as such. However, population genetics is quite useful for testing various evolutionary (and creationist) scenarios.

Population genetics is hampered by the assumptions of the 'bean bag model'. In this simplistic model each gene acts independently of other genes.

In the real world genes often affect more than one trait (pleiotropy), or more than one gene affects a given trait (polygeny).

ReMine shows how evolutionists, including some big name ones, have misapplied Fisher's 'Fundamental Theorem of Natural Selection', which actually says nothing about natural selection. It is a theorem about average population growth rates, given the growth rates of distinct sub-populations. It does not predict that evolutionary progress is inevitable, as many evolutionists have claimed.

ReMine deals with Haldane's Dilemma in a thorough and helpful manner. Haldane effectively showed that long-generation organisms have not had enough time to evolve, because of the cost of substitution (the fixing of a new gene in a population requires the death of those individuals which do not have it), even given assumptions favourable for evolution (for example, no pleiotropy or polygeny and only minimal consideration of recessive alleles). ReMine deals with various attempts to deal with the problem — such as Richard Dawkins' naive computer 'simulation' of mutation and natural selection where he uses grossly unrealistic assumptions (such as perfect selection, a high rate of beneficial mutation, high reproductive rate, a pre-determined goal, etc.) to produce the fastest possible 'evolution'. This provides the illusion that evolution is simple, virtually inevitable, and fast (p. 236).

ReMine also discusses Kimura's neutral evolution theory, which was basically an attempt to grapple with Haldane's Dilemma. Neutral evolution was supposed to make evolution go faster. However, a high rate of neutral evolution means that there will be a high rate of expressed **neutral** mutations, 90 per cent of which will be **definitely harmful** (according to Kimura's estimate), and this results in error catastrophe.

This is the incredible rationale behind the 'more than 99 per cent inert junk' claim regarding mammalian DNA. This 'prediction' of evolution-

ary theory has been falsified by molecular biologists as they have been unravelling the human DNA code, for example. Even as long ago as 1989, Maynard Smith acknowledged that 9-27 per cent of the human genome codes for protein (p. 250). This puts all evolutionary scenarios right out of court.

Using the neutralist approach, ReMine shows that, in 10 million years, a human-like species could substitute no more than 25,000 expressed neutral mutations and this is merely 0.0007 per cent of the genome — nowhere near enough to account for human evolution. This, ReMine says, is the trade secret of evolutionary geneticists. Evolutionary genetics textbooks avoid mentioning the problem.

ANTI-REDUCTIONISM

The scientific endeavour requires reductionism, which entails the attempt to break complex systems down into segments which are amenable to experimentation. ReMine discusses the ideas of sociobiologists who reduce human emotions and thoughts to the mere consequences of the selfish gene (after Dawkins) through case-by-case story-telling. Evolutionary critics such as Gould and Kitcher deride the sociobiologists, but ReMine shows how their arguments against sociobiology are the same arguments creationists use against evolutionary biology: story-telling is not science.

Many leading evolutionists disparage 'reductionism'. ReMine shows that they are really trying to avoid testability. ReMine 'translates' a convoluted statement by Depew and Weber as follows:

'The desirability of refuting modern creationism suggests the use of reductionistic ideals. These ideals have been powerful tools for this in the past, and they still are. But this should not be taken too seriously because evolutionary biology is definitely non-reductionistic' (p. 167).

Hierarchy theory (chapter 15) is

another example of evolutionists' anti-reductionism.

PHYLOGENY AND CLASSIFICATION (SYSTEMATICS)

ReMine explains the different methods of classification and the attempts of evolutionists to conscript classification as evidence for common descent. Evolutionists do this by presenting the tree structures of cladograms and phenograms, which show the nested pattern of organisms derived from systematics, as evolutionary trees. They present cladograms as lineages.

However, cladograms do not identify ancestors and descendants. Actual ancestors and descendants are not identified — and the fossils do not reveal them, as ReMine shows through a multitude of quotes from evolutionists who admit the absence of transitional forms.

ReMine shows how terminology, such as primitive/ancestral and intermediate form/transitional form, are confused and used to give the impression or illusion of evolution. An example that comes to my mind is *Archaeopteryx*. Evolutionists will say that this is an intermediate between reptiles and birds, giving the impression to non-specialists that *Archaeopteryx* forms part of a lineage joining a reptile with the ancestor of the birds. However, it is not **transitional** — it does not form part of any sequence (phylogeny) connecting reptiles and birds. Furthermore, it is a curious mosaic; none of its traits are transitional. For example, the feathers are fully developed, similar to extant birds; they are not part scale, part feather. Its brain case is fully avian, and so on. It has teeth — supposedly a reptilian feature — but they are like those of some other fossil birds, not reptilian teeth.

Another misused term is 'microevolution', used to describe the observable variations seen within basic types of organisms (for example, the

famed industrial melanism of the peppered moth, variation in finch beaks in the Galapagos, antibiotic resistance, etc.). ReMine rightly argues that creationists should not use the term 'microevolution' as this plays into the hands of the illusion encouraged by evolutionists: that given enough time, microevolution adds up to macroevolution. The sort of observable variation evolutionists like to dub as 'microevolution' is due to re-arrangement of existing alleles, or degenerative changes, whereas evolution ('macroevolution') requires the formation of new, complex, information-laden genes to produce feathers on reptiles, for example.

PUNCTUATED EQUILIBRIUM

The idea of punctuated equilibrium is discussed. ReMine says that '*punctuationists say they read their theory from the fossil record*' (p. 333). Actually, Gould and Eldredge originally claimed that their theory was derived from the theory of allopatric (geographic) speciation and concepts of group selection, so that they then 'predicted' the discontinuous fossil record.³ Then they claimed the fossil record validated their 'predictions' and therefore their theory. However, I think ReMine is correct: punctuated equilibrium is basically an attempt to down-play the lack of evidence in the fossils for phylogeny. It derives from a more 'literal' reading of the fossil record. Gould's insistence on 'bushiness' rather than trees also serves to down-play the need for lineages to validate evolution.

So is punctuated equilibrium testable? Gould says that a series of fossils showing gradual development of an adaptation would refute punctuated equilibrium. ReMine points out the 'no lose' situation that Gould and company have created here: if the fossils show systematic gaps, then the punctuated equilibrium model of evolution is 'proven', but if the fossils show gradualism, then the standard neo-Darwinian model of evolution is proven. In other words,

evolution itself is no longer falsifiable! Punctuated equilibrium and neo-Darwinism are both now part of the evolutionists' grab-bag of conflicting theories as Gould and Eldredge now view punctuated equilibrium as an addition to evolutionary theory rather than an alternative.

NESTED HIERARCHY

Evolution does not predict a single unified pattern in organisms. ReMine points out that the discovery of an organism having no similarity to any known life would not falsify evolution, because evolution does not predict its absence. Evolutionary theory would be immediately adjusted to allow for two systems of life.

Nor does the theory predict the nested pattern evident in classification. If evolved traits were lost and replaced at a high rate, then a nested pattern would not result. Descendants could bear little resemblance to their ancestors with no pattern of nested similarities linking them.

As ReMine says:

'Evolutionary theory predicts nothing, not even a nested hierarchy. Rather, the theory adapts to data like a fog adapts to landscape' (p. 350).

He has some interesting perspectives on convergences. Convergences are strikingly similar, but not identical. If they were identical, the observer could conclude that transposition occurred (that is, the traits were transferred between basically different kinds of organisms — for example, by viral action). However, they are sufficiently similar to demand incredible rationalisations from the evolutionist. Convergences unify diverse organisms in a way which cannot be explained by common descent or by transposition. Again we see the unifying pattern with a non-naturalistic message.

The nested pattern of organisms makes the biotic message resistant to noise due to such things as extinction or absence of organisms for observation in a given location,

because the pattern does not depend on any particular organism. This makes the biotic message robust.

EMBRYOLOGY

Again, the patterns seen in embryology defy naturalistic explanations but present a unifying message. Evolutionists point to similarities at the pharyngula stage of vertebrate embryos as evidence of common ancestry. However, at earlier stages they look quite different, which undermines the argument that similar appearance at the later phase is due to common ancestry. Furthermore, there are examples of similar organs which develop from different embryonic tissue — for example, the octopus eye and the vertebrate eye. And there are different modes of development. The amphibian foot develops by dissolution of intercalary tissue from a plate-like structure, whereas the very similar amniote foot develops by radial growth from buds. Here again the unifying pattern which thwarts naturalism and polytheism.

There is a helpful chapter on vestigial organs.

ReMine presents some interesting insights into molecular evolutionary studies. He shows that the nested pattern of similarities revealed by molecular methods which is erroneously interpreted by evolutionists as 'phylogeny', effectively thwarts transposition. He shows that evolutionists would embrace transposition, if they could, because it would help explain the lack of phylogeny and the large morphological gaps in the record of life. For example, Syvanen said:

The cross-species gene transfer model could help explain many observations which have puzzled evolutionists, such as rapid bursts of evolution and the widespread occurrence of parallelism in the fossil record' (p. 403).

Again, evolutionists are not committed to common ancestry, just to naturalism. The absence of transposition in multicellular organisms is

powerful evidence against evolution and for the biotic message.

FOSSILS

As well as the lack of clear lineages in the fossil record mentioned earlier, ReMine looks at the devices used by evolutionists to deal with the fossils. A major illusion of fossil sequence was created by evolutionists labelling fossil species as ancestors and descendants largely on the basis of their relative position in the strata. Fossil sequence was used to identify ancestors and then the perfect agreement between the fossil sequence and ancestors was claimed as evidence for evolution.

ReMine deals with five devices evolutionists use to cope with out-of-sequence fossils (that is, not in the correct strata to be transitional between others in a lineage). The two most powerful of these are:-

- (1) The two fossils do not have an ancestor-descendant relationship; they belong to sister groups. This is the approach taken now with the horse evolution story. We now have evolutionary bushes where lineage cannot be clearly seen. Anything can appear anywhere with a bush. As ReMine points out, with this scenario, the only way an out-of-sequence fossil could be demonstrated is by identifying a clear-cut evolutionary lineage based on morphology and then show that the organisms in the phylogeny are in the wrong stratigraphic sequence. Because it is not possible to construct any clear-cut phylogeny, evolution is insulated against out-of-sequence fossils. As ReMine says:
'The evolutionist need only claim that the organisms in question do not have an ancestor-descendant relationship. . . . And who could argue with that?' (p. 413).
- (2) The incompleteness of the fossil record. The earliest occurrence of the truly earliest species has not been found.

Fossils can be in sequence only if

they form a lineage and also appear in the proper chronological succession in the rock strata. Some evolutionists admit that these are not found.

REMINES CONCLUSIONS

ReMine has a helpful chapter where he summarises his case. He firstly discusses the evolutionists' criticisms of the 'two-model approach' (that is, there are only two alternatives, and evidence against evolution is evidence for creation). He shows how evolutionists use the two-model approach themselves. It can be traced right back to Darwin. Vestigial organs, embryonic recapitulation, 'imperfections', biologic universals, life's nested hierarchy, etc., have been used 'against God'. Evolution did not predict any of these things, but it is so plastic that it could be moulded to fit and provide an 'explanation'. Stephen Gould used the 'God would not create the panda's thumb' argument in his well-known book.⁴ And he co-authored an introductory biology text⁵ which used this approach.

Evolutionists arrived at another dualism via the two-model approach. They reasoned that they had proved that 'God did not do it', so evolution **must** have. So evolution is a fact. Then they debate (amongst themselves) about how it occurred. ReMine calls this the whether/how dualism. Of course, if a theory says nothing about 'how' it is not a scientific theory because it explains nothing.

Natural selection fails to explain the adaptations of life. The genetic model in all evolutionary genetics textbooks shows that a human-like population could substitute no more than 1,667 selectively beneficial nucleotides in ten million years (or possibly 25,000 neutral nucleotides). This is nowhere near enough to account for human evolution, but the implications are not spelled out, with students left with the impression that evolution is almost inevitable, easy and rapid.

ReMine summarises the illusions created by evolutionists to encourage

acceptance of naturalism: misuse of terminology (such as intermediate/transitional fossils), reversals of logic (for example, prove neo-Darwinism to disprove punctualism — a no-lose scenario for evolution), failure to clearly refute discredited ideas (such as embryonic recapitulation, vestigial organs, biogeography arguments), misapplying concepts (such as the nested patterns from classification, portraying them as phylogenies), the formulation of ideas to make them sound scientific, but are untestable (such as hierarchy theory and 'bushiness' which circumvent the need for phylogeny), portraying 'postdictions' as predictions of evolutionary theory when evolution is so plastic it could accommodate almost anything.

ReMine summarises the case against evolution, and the case for creation, in that evolution did not predict the patterns of similarity and diversity in organisms, whereas 'message theory' does. But in the end,

'when pressed, however, we can say that evolutionary theory — as practised by its proponents — is unfalsifiable, since that is its essential character' (p. 464).

'In short, their program is not science. From beginning to end, their program is driven by an unrelenting commitment to naturalism, at the expense of science' (p. 468).

ReMine claims that evolution is not science, being driven by naturalism, but creation (or message theory) is science because it makes testable predictions. I think that ReMine is going a bit far here. I don't think one can separate the two philosophically in that way. ReMine's 'predictions' from message theory are really postdictions like those of evolutionists. He has looked at the data and asked, 'how does this make sense, considering that it was created for the purpose of revealing the creator?'. Certainly the observations make much more sense from a creationist point of view, and ReMine has ably shown that evolutionary thought is a mess of contradictory, *ad hoc* story-telling, but

both deal with past events, which are not amenable to experimental verification in the present, and both are ultimately driven by belief systems. The naturalist has no room for a creator and the creationist has no room for anti-Biblical naturalism. In my view neither are ultimately 'science', but are, as Popper said of evolution, metaphysical frameworks.

SOME CRITICISMS

ReMine assumes the 'Big Bang' cosmology. I initially gave him the benefit of the doubt here — many creationists just use the 'Big Bang' as agreed evidence of a beginning; that everything had a beginning and therefore there was a 'First Cause'. Many theistic philosophers have taken this approach: 'OK, you accept the Big Bang, you must accept that there was a beginning and everything which has a beginning has a cause — ultimately the uncaused cause'. This is fair enough, as far as it goes, but ultimately it entails acceptance of the evolutionary time-scale with its attendant billions of years of fossil record and death and suffering before the Fall, and therefore undermines the Gospel which depends upon the historicity of the Fall and its consequences (I Corinthians 15:21,22). ReMine, oddly, calls Big Bang cosmology among our '*most firmly established science*' (p. 467).

ReMine proposes that the fossil sequence — the pattern of abrupt appearance and the sufficient completeness of the fossil record — was planned by the biotic message sender (chapter 21: Fossil sequence and message theory). He proposes that the message sender did this to thwart the 'life from space' and other naturalistic scenarios. This is fanciful. ReMine shows here that he is confused about the message sent by the message sender in the form of the written Word. The Bible is clear that death, disease and suffering resulted from the cursing of the creation after Adam and Eve sinned (Genesis 3, Romans 8). ReMine seems to accept the fossil dating scheme of the evolutionists

without question, which then puts the death, disease and suffering implied by the fossils before the Fall. The Bible gives a reason for most of the fossils: the great Flood (Genesis 6-8). The fossils do send a message; a message of judgment (II Peter 3). It's a shame that ReMine's otherwise sound logic falls apart here.

It is curious that ReMine begins this chapter with an interesting quote from Raup:

'One of the ironies of the evolution-creation debate is that the creationists have accepted the mistaken notion that the fossil record shows a detailed and orderly progression and they have gone to great lengths to accommodate this "fact" in their Flood geology' (p. 423).

And then ReMine omits any reference to Flood geology — which can explain the general patterns seen in the fossils without resorting to the contrivance of planned sequential release of newly-created organisms. It's sad that ReMine resorts to this 'progressive creationist' approach. It mars an otherwise very good work.

Another negative is the lack of illustrations. There is not one illustration in this large book of 538 quarto pages. Many of the points made would

be made much clearer with illustrations — for example, the systems of classification, including 'discontinuity systematics', could be explained much better with diagrams. There is a lot of unnecessary white space throughout the book which could be put to good use with some illustrations, or removed to save paper.

It is sad that the book is relatively expensive, which will limit its accessibility to tertiary science students, who would benefit greatly from this book, particularly in developing their critical thinking skills regarding origins.

BOUQUETS

The evolutionary literature is thoroughly reviewed and critiqued. ReMine understands evolutionary theory better than most evolutionists. The book will inspire those who read it that biology only makes sense in the light of creation.

There is a good index. Cited references are set out in a single reference index at the end, and footnotes are used extensively to explain or cross-reference (which is much easier for the reader than having endnotes, or worse, notes listed by chapter at the end of the book). There

are two helpful and extensive appendices dealing with natural selection and Haldane's dilemma in more detail. The volume is beautifully produced with good quality paper and binding.

This is a book that should be read by anyone interested in the big picture, and especially biology. It is a landmark volume with many original insights — only some of which have been touched upon in this review.

More information on the author, the book, and comments by various reviewers, can be found on the Internet at <http://www1.minn.net/~science/>

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3. Batten, D. J., 1994. Punctuated equilibrium: come of age? **CEN Tech. J.**, 8(2):131-137.
4. Gould, S. J., 1980. **The Panda's Thumb**, W. W. Norton and Company Publishers, New York.
5. Gould, S. J., Luria, S. E. and Singer, S., 1981. **A View of Life**, The Benjamin/Cummings Publishing Company, Inc., Menlo Park, California.

Errata

Roy D. Holt, 'Evidence for a Late Cainozoic Flood/post-Flood Boundary', CEN Tech. J., 10(1):128-167.

On p. 138, the estimated total Ice Age runoff and load of 5.05×10^{20} g in the text should read:- 5.03×10^{20} g and be in agreement with Table 4.

On p. 139, under the title 'Flood/post-Flood boundary as Determined by post-Flood Sediments', the first sentence should read:-

Combining the maximum Ice Age and deglaciation marine sediment with Holocene marine sediment gives a total post-Flood sediment of about 1.1×10^{21} g.

(This correction decreases by less than 10 per cent the published maximum post-Flood sediment estimated at 1.2×10^{21} g. The Flood/post-Flood boundary remains in late Pleistocene as determined by post-Flood erosion and marine sediment deposition.)

On p. 162, a sentence near the end of the page should read:-

My best estimates were based on having 1,000 years between the Flood and the end of the Ice Age.