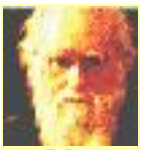

Was Darwin Wrong?

Does life look like or unlike evolution?

"The Biotic Message. Evolution versus Message Theory"

a review *by* Gert Korthof

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Who is Walter Remine and what is his book about? Walter Remine's position is somewhere between Young Earth Creationists (YEC) and Intelligent Design Theorists (IDT). YEC's claim that the supernatural is an appropriate concept in the natural sciences. IDT do not talk about Genesis and the Flood, but about 'origins' and 'design'. IDT is a group with members as Phillip Johnson, Michael Behe and William Dembski.

Generally IDT are Old-Earth-Creationists. Remine accepts the standard age of the universe and the Earth. *The Biotic Message* was written to overturn the question "If a designer created life, then why does life look like evolution?". To create life in such a way that it looks like evolution, would be misleading human observers, according to Darwinists. However Remine does not accept the question itself, so he does not answer it, but tries to show that the question itself is wrong. That is: life looks **unlike** evolution. Life looks like designed by a designer. So the designer is not misleading us.

The Biotic Message was written to overturn the question: If a designer created life, then why does life look like evolution?

That life was designed has been told hundreds of times before in creationist books (1). However Remine's message theory is unique, in that he adds that life was **intentionally designed** to look unlike evolution. From his theory he derives detailed predictions about how life should look like. This is all part of his message theory. He even goes further then that. He claims that life looks like the product of a *single* designer, not two. And these conclusions, Remine claims, are not based on religion, but on the biological facts in the textbooks of evolutionists.

Some characteristic claims of Remine are:

- Remine rejects common descent of all life but accepts 'micro-evolution'.
- morphological gaps are evidence against evolution.
- the absence of an enzyme to digest cellulose, the most abundant food source on earth, is evidence against evolution.
- the absence of clear phylogeny in the fossil record and gradual intergradations are evidence against evolution.
- embryology is a major evidence against evolution.
- the Cambrium explosion is evidence against evolution.
- why is there no available means for the inheritance of acquired characters? It would require a simple mechanism.
- the most plausible evolutionary theories predict that sex should not exist.
- the fact that transposition (horizontal gene transfer) is not common counts against evolution.
- evolution theory does not predict a nested hierarchy.
- evolutionists are not committed to common descent.
- evolution does not predict anything, evolution does not explain anything (2).
- the Big Bang theory is the most firmly established science.
- Paley's argument from design is still a compelling argument.

In this part of the review I focus on two main criticisms of the Message Theory: 'directly created organisms' and 'does life look unlike evolution?'. This article is not a summary of Remine's book and I don't claim to be complete.

Directly created organisms

Remine had the courage to state clearly the implications of his theory:

> "Directly created organisms have no ancestor, they are created by the direct action of a designer." (p510)

The quote appears in the *Appendix to Discontinuity Systematics*. Although he wants to "de-emphasize the theoretical concept of directly created organisms" (what does that mean?), he does not reject it. He explains in the same paragraph that directly created organisms

> "are not related by common descent".

On the next page the concept is repeated:

> "Numerous life forms were separately created" (3).

Numerous? How many creations would he need in fact? Well, assume there are now 1 million living species, and assume that one allows for some micro-

evolution (see box 4, example of *Canidae*) which generates 10 - 100 new species for every original species, then one needs, 10,000 - 100,000 special created ancestors. This means Walter Remine's theory needs 10,000 - 100,000 miracles. Please multiply this number by 1000 to include *extinct* species (4). So we get 10,000,000 - 100,000,000 special creations. Remine is vague about what he means by 'directly created *organisms*' or '*life forms*'. Are they individuals? male-female pairs? populations of thousands of individuals? whole species? Please multiply the number of special creations accordingly. This is just to realise what it means to say that 'directly created organisms have no ancestor'. Remine's concept of 'Directly created organisms' is a violation of the **principle of parsimony** or **Occam's Razor**. The principle of parsimony proposes that we tentatively accept the simplest hypothesis that accounts for the data. In the absence of any evidence to the contrary, it is preferable to accept the simpler explanation (common descent), because that requires the fewest conjectured events. It is simpler to postulate that life originated only once, than a billion creation events. Whether these creations are supernatural or not, the sheer number of them makes it an unattractive hypothesis.

But there is more. Remine accepts the Big Bang, and consequently the standard age of the universe and the Earth. How were these billions of acts of creation distributed over the history of the earth? In 3 seconds? 3 days? 3 million years? 3 billion years? And in what sequence? We would expect that Remine claimed an '**unlike-evolution-sequence**', but he didn't. A missed opportunity to show that life is unlike evolution. For example: start with complex organisms and end with simple organisms.

Does life look unlike evolution?

Remine's question 'Does life look like/unlike evolution?' is important and fascinating and can be analysed in a way compatible with mainstream science and with quite interesting results. The question is also independent of Remine's criticisms of mainstream evolutionary theory, because it focusses on how organisms themselves are constructed, not how evolutionary theory is constructed.

To solve this problem, one needs knowledge of alternative biochemical designs of life. Remine didn't really begin to explore those biochemical design options. Are there features of life that would effectively block the common descent interpretation and at the same time suggest independent creation? A feature that would make a difference? (If we cannot find such a feature then there are no observational differences between creation and evolution). Preferably something more powerful than blocking a transformation of gene A into gene B by ordinary mutations and more powerful than blocking a transformation of one particular species X into another species Y. One of the most powerful alternative designs I can think of, would be a difference in **the genetic code**. The genetic code translates information stored in DNA, the genes, into proteins/enzymes necessary for life (*see box 1*). There are three important aspects of the genetic code in relation to the above question:

1. its universality
2. its resistance to change
3. its arbitrariness.

First: As it happens the genetic code is universal to life: bacteria, plants, animals and humans use the same code (5).
Second: the genetic code as it is now does not easily tolerate mutations (6). This is because mutations in the genetic code, unlike mutations in genes that code for proteins, would potentially mutate *all* proteins of an organism. For humans 60 000 - 80 000 different proteins would be mutated by one mutation in the genetic code. No embryo would survive that. Scientists derive this prediction from the biochemistry of the genetic code and the biochemistry of the cellular machinery. That's why once the genetic code was established, it didn't change (*see box 2*). Of course *genes* change, but the genetic code did not (with a few minor exceptions). This has the consequence that all organisms inherit the genetic code from their ancestors.

box 1:
The genetic code (1).
Frequently 'genetic code' is taken to be identical with the genetic instructions stored in DNA (even scientists are doing this). This is wrong, because there is a difference between **encoded instructions** and **the key** to decode those instructions. The 'genetic code' is *the key* to decode the encoded instructions in DNA. DNA is not directly useful for an organism, it has to be translated into proteins in order to be useful. The 'genetic code' is doing the translation from DNA-world to protein-world. The genetic code and the genetic content of an organism belong together, like a key and a lock.

Third: despite its universality and despite its resistance to change, the genetic code is in a high degree arbitrary (7). It's a highly arbitrary assignment of 61 codons to 20 naturally occurring amino acids (the building blocks of proteins). In other words: theoretically there are many ways to encode the same protein. A chemical necessity in the association of amino acids with codons has never been found (8). So there is no reason to choose the particular code we have now. The code has been called 'a frozen accident' (neatly combining property 2 and 3). Every assignment is possible as long as the same 20 amino acids are produced (and the level of redundancy isn't changed). This assignment could be done in an astonishing 1.40×10^{70} ways (that is: 10 power 70) according to Hubert Yockey (9).

As a consequence of the third property there is an exciting freedom in the design choices. A protein could be encoded in billions and billions of ways. Even if we allow for assignment constraints (10), there is still a huge overkill of design options. Yes, more than enough to give *every species on earth, living and extinct, its own genetic code!* I admit, it would be a perverse idea within the evolutionary paradigm, but it would not kill any organism, provided of course that they were created with the right 'key and lock' combination. It follows from the character of the genetic code, that all these designs can be implemented without any need to change the building blocks or the 3D-structure of the DNA-molecule (Watson-Crick model) itself. (This means that the 'unity of life' would still be guaranteed, as Message Theory demands). What needs to be changed

box 2:
The genetic code (2)
What would happen if the genetic code of an organism mutated? Suppose somebody switched your keyboard with a keyboard where all the keys have different meanings: they generate wildly different letters on your screen. For example 'QWERTY' would produce 'LAIX8B' on your screen. Your typing would produce rubbish. The same catastrophic effect would result from a change in the genetic code: an organism would produce rubbish proteins, and would be dead very soon.

are the sequence of bases in the genes. For example, the *genes* for hemoglobin would be different in all species, but still code for the *same hemoglobin*. For their functioning it simply doesn't matter *how* proteins are encoded. The range of proteins that could be produced is exactly the same. Such species would live a happy life without any problems for their fitness, for interbreeding within their own species or for producing healthy offspring. So, there would be no technical problem for a designer to implement a multitude of different genetic codes. On the contrary, the tremendous number of design choices of the genetic code would create an exciting opportunity to give every single species its own genetic code. As a consequence such species would be genetically as much isolated from each other as from species of other planets. Hybridisation or any exchange of DNA between species would be impossible. Since species usually don't exchange DNA anyway, it's a mystery why the designer did give them the same genetic code at all. Species simply don't need the same code!

Why should we give every species its own genetic code?

But why should we give every species its own genetic code? Because it would create insurmountable barriers to the common-descent interpretation and so would constitute a perfect demonstration of **independent** origin of all species, while being 100% compatible with life and DNA-structure as we know it, despite its interference at the deepest levels of the design of life. It would constitute a barrier, because if all life descended from a single life-form, then all life necessarily should have a common genetic code. Universality implies a common origin. This follows from the second property of the genetic code: resistance to change. A species could not have a species with a completely different genetic code as a direct ancestor. The common origin also follows from the third property (its arbitrariness) of the code. The current code is not inevitable, so one could not expect that nature arrived at exactly the same code if life had many independent origins. And if this would not be enough, the designer could *distribute* the different genetic codes in such a way that morphologically related species received unrelated genetic codes.

There is a second reason why a designer should give every species its own genetic code: that design would be an absolute barrier to interbreeding and in that way the morphological gaps of life would be guaranteed. And that would look unlike evolution according to Remine (page 366).

Less extreme but still revealing schemes are possible. Not every species needs a different code, as long as closely related species would have *maximally different* genetic codes so that they cannot be derived from each other in a stepwise evolutionary way. For example, if the designer wanted to give the human species a special molecular status beyond the biological status humans have now, he could give humans a unique genetic code *not derivable* from any other species including our closest relatives chimps and bonobos.

More extreme designs of life are possible. The hereditary molecule, DNA, could be different for all species. However, as far as I know, there isn't a proven biochemical alternative for DNA. But it would be conclusive evidence for the independent origin of species.

Now let's return to Remine's question: 'Does life look like/unlike evolution?'. We see now that 'every-species-its-own-genetic-code' design would be our first choice if we wanted life to look unlike evolution. If this were found in nature, then this would be the strongest possible argument against evolution. Every species having its own genetic code would amount to saying every species had

an *independent* origin. What better evidence for special creation of species could one dream of? The message would be unambiguous:

"NO EVOLUTION! NO COMMON DESCENT!"

However this 'every-species-its-own-code' is **not** what we find in nature. So what? Remine does not only state that life accidentally looks unlike evolution, but that the designer **intentionally** designed the living world to look unlike evolution. If 'intentionally' has any meaning, it must mean that the designer did everything in his power to design life unlike evolution (11). From that point of view the design we actually find is truly disappointing. Current life could be far more creation-like then it is according to Remine's own standards. The design we find in nature, the standard genetic code, is not only 100% compatible with common descent, it's extremely suggestive for common descent of all life on earth.

Please note that Remine does not have the option to claim that the designer created the standard code to mimic common descent, because that would be a gravely misleading message. It would be a joke.

Discussion

`"Evolutionary theory is compatible with anything"` Remine claims. If this would be true, then evolutionary theory would also be compatible with independent creation. How could Remine talk about "life unlike evolution" if evolution is compatible with anything? Of course evolution consistently opposes independent creation. `"Evolutionary theory never predicts anything"` (p96) claims Remine. Of course Darwin could not predict that DNA was the universal hereditary molecule. The structure of DNA was discovered in 1953, nearly one hundred years after the publication of *The Origin of Species*. Of course Darwin could not predict that the genetic code was universal. This emerged gradually only after 1966 when the complete code had been established. These are unreasonable demands of Remine. The point is that there are biochemical designs of life *possible* that block common descent and those designs are **not** present in life. And it is irrelevant to point to the fact that scientists proposed pre-life forms that lack some or all universal characteristics of life, as Remine does (p93,p460).

Evolutionary theory never predicts anything

This does not destroy the fact that DNA-universality exists **now** in all 1 million living species. Those million species are enough 'to send a non-evolution message'. Remine demands evolutionary predictions. Well, here is one: designs at the genetic level that clearly contradict evolution are possible but absent.

Probably Remine thinks that DNA is just another universal property of life. This is not so. DNA is the physical connection between the generations. DNA is the physical basis for Common Descent. And Remine ignores it. This is even more remarkable because Remine claims the designer is not sending a misleading message. Why did the designer chose the same hereditary molecule and the same genetic code for all species? The fact that DNA is the universal molecule of heredity common to all life, shows that there is a gapless continuity at the genetic level in the system of life. Remine frequently talks about *morphological* gaps, but 'forgets' that there is continuity at the genetic level. At the genetic level there is nothing that blocks common descent. Michael Denton(1998) came to this conclusion in his Nature's Destiny in the paragraph

"**The Closeness of All Life in DNA Sequence Space**". If there is any 'unlike-evolution-message', then it is, unsurprisingly, at the Order, Class, Phylum and Kingdom level. The creation message is extremely weak ***compared with what it could have been***. Yes, if species are created, then the message is misleading at the genetic level. And it's not *my* idea that life should *intentionally* look unlike evolution. It's Walter Remine's idea. Remine could have decided that the enigma of life's origin or Paley's design argument were enough to establish a designer, but he wanted more than that. He wanted too much.

The famous philosopher **Paul Feyerabend** once remarked: "The first step in our criticism of customary concepts is to step outside the circle and either to invent a new conceptual system or import such a system from outside science, from religion, from mythology." (12) That is exactly what Remine did: inventing a new conceptual system. Remine's Message-paradigm inspired me to invent an even more creation-like-design and even more unlike-evolution-design than he did. It was great fun. The idea would probably never have occurred to me without Remine's message theory. We cannot understand any evolution theory if we cannot compare it with a non-evolution theory.

MESSAGE THEORY

Remarkable for a book with the title *The Biotic Message. Evolution versus message theory*,
there isn't a single chapter devoted exclusively to the message theory. Message theory appears throughout the book almost as footnotes to problems in evolution theory, however the index of the book is helpful to find them.
The message theory says that life was intentionally created to look unlike evolution. A few examples show message theory in action:

> "Therefore the designer had to use odd and curious design."
>
> Walter Remine.

- "the biomessage sender was out to destroy phylogeney"
- "life's designer scrupulously avoided a transposition pattern"
- "The broad absence of Lamarkian inheritance is a straightforward prediction of message theory."
- "the designer was constrained from using the same design again indiscriminately"
- "re-use would be acceptable design practice.."
- "the designer does not send hidden or encrypted messages"
- "the message is not intended solely for high-tech civilizations"
- "A biomessage sender is constrained against using only perfect engineering designs."
- "We expect an ordinary designer to use the same design. A biomessage sender is no ordinary designer"
- "Perfect design would look like the result of many

designers acting separately"
- "Therefore the designer had to use odd and curious design. ... This solves the argument from imperfection."

In stead of arguing against all statements individually, I formulate a number of general methodological objections to Remine's 'message theory'. But not before having emphasised that Remine's message is by no means intended metaphorically. It is intended as a literal message.

- **Why is there a message at all?** Remine offers no methodology to establish the existence of a message. And it is not an easy task, because:
- **The message is not expressed in a language but in a 'pattern'.** Human messages are expressed in a language, not in a pattern of objects. Is it justified to speak of a message at all?
- **How can one be sure where the message starts and ends?** If the message is not expressed in a language and the very existence of the message has not yet been established, how does one find out which objects belong and which objects do not belong to the pattern? Why is the message biotic? Why would a designer not create life through evolution as theistic evolutionists claim? There could be a message in the fact of evolution, or there could be a message in the absence of evolution.
- **Message theory is 'designer psychology'.** No message without intentions. No message without motives. Remine is digging in the mind of the designer. In other words: message theory is designer psychology. Remine claims to know the message *and* the intentions.
- **Remine offers no methodology to detect the number of designers from the pattern of life.** Remine objects to 'too much' diversity in life that it would look like the work of more designers, as if he could determine the number of designers based on a measure of diversity. Obviously and unsurprisingly he prefers one designer. But how much diversity is too much for one designer? And how much unity is too much for multiple designers? How are unity and diversity defined? From the existence of Five Biological Kingdoms (5), it could be concluded that there are Five Designer-Kings.
- **The question if life looks like evolution can be solved without a message theory.** Therefore message theory is redundant. Whatever the existence of a message, first one needs to establish the fact (or non-fact) of evolution.
- **Message theory is not a biological theory**. It is not about biological species or properties of life. Biology can study patterns of life, or songs of birds, or even a 'message' in DNA, but not Remine's kind of message. Remine's 'designer' cannot be brought under laboratory control, nor can an action of a 'designer' be observed in the field, nor does a mathematical model of the designer exist. That's why biology is justified in excluding Remine's designer from scientific practice.

Michael Behe, the author of *Darwin's Black Box*, said about 'designer-psychology': *"Yet the reasons that a designer would or would not do anything are virtually impossible to know unless the designer tells you specifically what those reasons are."* and: *"The point of scientific interest is not the internal state*

of the designer but whether one can detect design" (13). Because Intelligent Design Theory avoids the pitfall of designer psychology, it is a more advanced theory than Remine's. It looks as if Remine himself realises the dangers of design-psychology: "not by ill-formed notions of what the designer 'may have' done." (p509) However his message theory is based entirely on designer-psychology. An example of the problems inherent in a designer concept is Remine's answer to the question 'Why should a biomessage sender choose a nested pattern over others?". Remine explains this by 'noise immunity' (p359). 'Noise' is clearly a concept from the engineering world, but not appropriate for a supernatural designer. The creator would first create noise and then create 'noise resistance systems'? The same holds for so called 'system bootup'. Of course a supernatural creator who could create a billion species out of nothing, would not be constrained by a human engineer's puzzle as system bootup. Remine really goes too far when he introduces the concept of an "unordinary designer".

All this shows that the concept of a designer is not helpful in understanding the natural world. Yes, for some it does stop further questioning, but we do not gain knowledge of the living world. In my view one cannot improve the message theory; one needs to drop it. And since a message is from a message sender, one needs to remove the concept of a 'message sender' also from science. Yet Behe accepted a designer. However for a different reason: Irreducible Complexity as a property of life. More important: Behe's Irreducible Complexity is totally independent of any 'designer-psychology'. Remarkably, it seems that Remine, an engineer, is not interested at all in the internal design of organisms. He treats organisms as black boxes. Behe opened the black boxes.

UNITY & DIVERSITY

- `"All organisms are linked by design, not by descent"` (p324)

This is Remine's reply to "the notion that humans are in no way linked to the other animals" (Miller). 'Linked by design' is a misleading phrase because Miller meant *naturally*, *physically* and *biologically* linked by descent. 'Created species' are by definition not *genetically* linked because they have no ancestors. Those species are unlinked. The chain of life is broken. It's evolution by common descent that links all organisms genetically. In the evolutionary view there is an unbroken chain of all life forms. Inheritance establishes the links (14). That's the crucial difference between evolution and creation. Remine blurs this difference by his phrase 'linked by design'. Remine has the tendency to talk about 'linked' while believing in *independent* creation. Independent is not linked. Remine focusses on the morphological and palaeontological discontinuity of life, when he wants to show independent creation and exclusively focusses on universal properties of life (and 'forgets' his discontinuity) when he wants to prove one designer. But discontinuity is the opposite of 'linkage'. Discontinuity means 'no linkage'.
Remine's motives could be that he wants to 'explain' universals and similarities in this way.
However if one believes in independent creation one should accept the consequences of such a worldview. And that is: organisms (Remine's term "monobaramin") are created from scratch; they are not linked by descent. Directly created organisms do not inherit anything from their ancestors,

because they have none. The fact that creationists feel the need to invoke supernatural creations points to the absence of *natural* links between all species in their worldview. Where creationists see gaps, there are no links. Surprisingly one also finds reluctance to fully accept the created worldview in his Discontinuinity Systematics. There he wants to 'de-emphasize' his 'directly created organisms' without rejecting the concept of 'directly created organisms'. As if he can't accept the consequences of his own worldview.

> "If the living world has not arisen from common ancestors by means of an evolutionary process, then the fundamental unity of living things is a hoax and their diversity, a joke"
>
> Theodosius Dobzhansky (18)

If species share a multitude of characteristics despite independent creation, then this needs to be explained. 'United by design' is not an explanation. First it supposes that there is only one designer and second it supposes the designer *needed* to create all those similarities. But why should he? There is no solid methodology in the book to explain why a designer should create the mix of unity and diversity we find in nature. Or why different designers could not produce similar designs. Of course such a methodology can not exist. Nobody can known these things. All Remine can offer is speculative design-psychology, which was even rejected by Michael Behe. This is the reason why the 'explanation' that unity results from *one* designer doesn't work. Inheritance does explain it and inheritance is one of the scientifically best understood phenomena in biology.

box 3

Life looks:	**like evolution**	**neutral**	**unlike evolution**
Remine:	Common descent of dog,wolf,coyote. Real lineage.	???	Phylogenetic gaps. Gaps in fossil record. HGT Designed for survival.
Korthof:	Unnecessary universals/shared properties: genetic code, chromosomes. Nested pattern. Survival by nat. selection.	Necessary universals: Carbon-based-life, Properties dependent on physical-chemical laws. Survival (general).	**H**orizontal **G**ene **T**ransfer. Every species its own genetic code.

The surprising result of this discussion seems that when both creationists and evolutionists claim to predict and explain the unity of life, and survival of lifeforms, then these must be neutral properties. They are too vague to be able to discriminate between the two. However Remine did not identify the category *neutral* facts, which contains among others, all *necessary* design similarities. Remine didn't discriminate between necessary and unnecessary design properties too. Unnecessary designs or historical accidents (as the genetic

code) suggest evolution.

DISCONTINUITY SYSTEMATICS:

Discontinuity is the key issue

It's no surprise that discontinuity is the key issue for Remine (p513). Discontinuity of life is part of Del Ratzsch's definition of Creationism (15). Remine wants to build a theory-free Discontinuity Systematics as seen by a neutral observer. That is: without the concepts of 'creation' or 'message theory'. `"If the data indicate that organisms are credible common descendants, then they are classified as common descendants."`(!) (p509). Discontinuity Systematics seeks the boundaries of common descent. These are good intentions. His Discontinuity Systematics looks like a proposal to be published in a scientific journal, but this did not happen (Remine did not mention such a publication in his own references). Despite his good intentions the supernatural/natural distinction creeps in his definitions. Remine defines boundaries where organisms cannot be linked *by a naturalistic process* (p448), implying that the gaps have to be filled in by supernatural creations.

Let us look at an example of Discontinuity Systematics. Remine places **dogs, wolves, coyotes, jackals** and **foxes** in one systematic group: the **Canidae** "monobaramin". Remine defines "monobaramin" as `"a group containing only organisms related by common descent, sharing a common ancestor."` (p444). By doing this he says that dogs, wolves, coyotes, jackals and foxes have a common ancestor. This is not a trivial thing to do for someone who writes a book against evolution. Furthermore Remine does not tell his readers that his *Canidae*-group is at the **family** level, which includes 12 *genera* and 34 *species* and that is far more extensive then just some micro-evolution at the species level. Remine does not give any biological evidence for the common descent of *Canidae*. (As if it is not important. Human descent seems more important then that of dogs and foxes). He demands this sort of evidence from evolutionists. Remine underestimates the diversity of the group *(see box 4)*. (He looks at the group as an amateur-biologist: they all look morphological variants of the same type. As if hair color (*red* fox, *grey* fox, *grey* wolf) and some hybridisation is all one needs to know). Remine seems to be unaware of the implications of his example:

box 4: **Canidae**.

The *Canidae* group diverged from other *Carnivora* 50-60 million years ago. The ancestor produced 12 genera and 34 species in less then 10 million years. Their chromosome numbers vary between 2n=36 - 78, including 36, 42, 50, 64, 66, 74, 76, and 78. A difference in chromosome number restricts hybridisation.
See: Robert K.Wayne: *Molecular evolution of the dog family*.

1. acceptance that the naturalistic neo-Darwinistic processes mutation and natural selection created 34 species of the *Canidae* family, because

only the 'proto-dog' would have to be created. So Remine implicitly accepts those 'atheistic unsupervised unguided unplanned undirected purposeless blind materialistic' random mutations!

2. acceptance of evolution *above* the species level, so more then what usually is called "micro-evolution".
3. acceptance of the fact that *Canidae* solved Haldane's dilemma: a group of higher vertebrates could pay the costs of substituting genes. (Remine sees Haldane's dilemma as an obstacle to evolution).
4. why stop at the *Canidae* boundary? Why not include skunk, weasel, otter? and so on.
5. despite any discontinuity, despite any boundaries, the dog-family and the cat-family share thousands of genes. Were all those genes created from scratch by the designer? *Any* discontinuity in life is linked by shared properties at the molecular level. Were they all created from scratch by the designer? An obvious violation of the principle of parsimony.
6. if a proto-dog could produce a family of 34 species in less then 10 million years, why should a homonoid ancestor not produce chimpanzee, bonobo, gorilla, orang-utan and humans in the same time? The chromosome variation within the homonoid group is much smaller than in *Canidae* (*see box 5*). If the genetic distance wolf-fox would be the same as bonobo-human, then Remine should conclude that bonobo and human have common ancestors. However one expects that creationists belief that **humans** 'are created by the direct action of a designer'.

box 5:
the Homonoid group

In old classification systems *Homo* was a separate family. In the modern classification of humans and apes, Homo sapiens, gorilla and chimpanzee are in the same family. African apes and humans diverged 4 - 8 million years ago. Homo sapiens has 2n=46 and chimpanzee, gorilla, orang-utan have 2n=48 chromosomes. There is evidence that the human chromosome 2 originated from a fusion of the chimpanzee chromosomes 12 +13 which explains the difference in chromosome number.

Lamarck simple?

- `"Lamarckian inheritance is a simple, plausible mechanism, with real benefit for evolution. Accordingly it should be everywhere, and its absence is a serious problem for evolutionists"` `(p115)`

Lamarckian inheritance, or the inheritance of acquired characters, is by no means simple and plausible. According to what criterion is it simple? Remine doesn't tell. What makes a biological process 'simple' or not is the biochemical mechanism behind it and the mechanism is far from simple *if it exists at all !* The probable cause of Remine's error is that he misreads Maynard Smith's words: "Lamarkism is not so obviously false as is sometimes made out" (16) as meaning that it is simple and plausible. However the reader who continues to read Maynard Smith notices that Lamarckian inheritance is not so obviously

false, but is false nonetheless. Any knowledge of the 'Central Dogma' (17) would tell him so and would prevent misunderstanding that quote. Maynard Smith formulated it in that way because of the strong prejudices scientists have against any form of Lamarckian inheritance, not because it is true! I am not saying that Remine intentionally misinterprets Maynard Smith, but his wish to attack evolution theory made him uncritical.
Remarkably a few pages before in Remine's book (p111) Remine knows that "Lamarck's theory is falsified"! Only in Remine's fantasy is the absence of Lamarckian inheritance "a serious problem for evolutionists". "The broad absence of Lamarkian inheritance is a straightforward prediction of message theory." Here Remine, master of the art of illusions, created the double illusion that evolution theory has a problem and his theory solved it. Remine is in this matter a false guide for the reader.
An example of a *weak* form of the inheritance of acquired characters, which does not violate the 'central dogma', is that of the inheritance of immunological responses, which was recently published by Edward Steele et al (17). His claim was severely criticised by the scientific community. The evolutionary usefullness of these complex phenomena have not been established. Remine's claim that Lamarckian inheritance is simple, is completely unfounded. And it's also wrong that Lamarckian inheritance should be widespread in organisms, because that is based on the false assumption that Lamarckian effects are automatically adaptive. Lamarckian effects could be a burden for organisms. Remine could as well have claimed that, from an evolutionary point of view, beneficial mutations should be common, and harmful mutations should be rare, because this would be extremely beneficial for evolution.
To make Lamarckian inheritance a serious evolutionary mechanism, one needs at least: (a) environmental induced production of a *new* and *beneficial* protein and (b) a mechanism to translate it back via RNA into DNA and (c) to transport it to the germline (d) to successfully integrate it into the chromosome. These are all serious obstacles! To my knowledge there is no evidence that this *strong* form of Lamarckian inheritance ever occurred in nature.
Remine claims also that Lamarckian inheritance would not falsify natural selection (p113). I agree with that.

Notes:

1. Tom McIver(1992) *Anti-Evolution. A Reader's Guide to Writings before and after Darwin.*
2. To my surprise I found this criticism recently in an Editorial(!) of the *New Scientist*, 7 August 1999: "It is both a weakness, and a strength of evolutionary theories that they can explain almost anything". Did the Editors read Remine or is the criticism common knowledge?
3. "Numerous life forms were separately created, yet they did not remain entirely unchanged. They varied and branched, like an evolutionary tree on a smaller scale." (p511)
4. "Probably more than 99,9% of all the species of animals that have ever lived are extinct", Lynn Margulis(1998) *Five Kingdoms*, p208.
5. "Because all organisms share a common genetic language, DNA, a gene for a desirable trait can be taken out of one organism and inserted into another, where it will be read and properly understood even if the new host is an unrelated species." (quoted from Pandora's Picnic Basket). This is the basis of genetic engineering and Genetically Modified Foods (GM Foods).
6. Deviations from the universal code are secundary, non-disruptive, show a tree-like

pattern, conform to Common Descent, and are invariably associated with genome miniaturization. See: Syozo Osawa(1995): *Evolution of the Genetic Code* (Oxford University Press); and The Genetic Codes (NCBI). (URL supplied by Richard Deem). See also 'The origin of the genetic code' in my review of Schwabe.

7. John Maynard Smith & Eörs Szathmáry(1999): *The Origins of Life. From the Birth of Life to the Origin of Language*, p45.
8. Christian de Duve(1995) speculates in *Vital Dust* about the idea that codons and amino acids must have "seen" something in each other, but concludes "although not entirely hopeless, the prospects of this line of research do not look encouraging." (page 72).
9. Hubert Yockey(1992): *Information theory and molecular biology*, page 183.
10. constraints *relative to the current laws of chemistry*, however:
11. Of course the designer of the universe has no constraints *if he wanted* life look unlike evolution, because he designed all the fundamental properties of matter and therefore has complete freedom of design.
12. Paul Feyerabend(1976): *Against Method*, third impr., page 68.
13. Michael Behe(1996), *Darwin's Black Box*, p 223.
14. Compare with Object Oriented Programming (in computer sciences): it is more efficient to **inherit** properties from parent objects and add properties, than to create every object from scratch.
15. Del Ratzsch(1996), *The Battle of the Beginnings*, p12.
16. John Maynard Smith(1989,1998), *Evolutionary Genetics*. Quoted on page 114 of *The Biotic Message*.
17. Edward Steele et al(1999), Lamarck's Signature.
18. Dobzhansky(1964) *Biology, Molecular and Organismic*, American Zoologist, p449.

Links:

- A review of The Biotic Message by Don Batten. Don Batten uses quotes from the Bible in his review (*to criticise Remine!*). To his credit Remine refused to use quotes from the Bible in *The Biotic Message*.
- 'Discussion Area' of the *The Biotic Message* owned by Saint Paul Science Inc. ('You are welcome to send your comments'.) I registered the previous version on the 'Discussion Area' on June 20 1999, and on July 12 there was a lengthy reply by publisher (anonymous)+Remine, but nothing was posted on the 'Discussion Area' (July 15). However, I used the instructions in that email to clarify some points which apparently caused misunderstandings and extended the review (12 Sept: v2.0).
- review by Thomas Waschke (Deutsche Sprache, German language). 28 Jul 2000

part two of this review (kortho42.htm) was added to this one (kortho41.htm) 15 Mar 2006

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