

## Objections to Ray Comfort's Foreword

(Note: The paragraph numbers might not be completely accurate; I counted partial paragraphs and block quotes as paragraphs. Also I added a lot of personal commentary, so sorry if you don't like it.)

P 5 ¶ 2: The quotations from Darwin are cast in a light to make him seem more sympathetic to religion (red indicates the parts that Comfort quoted):

Formerly I was led by feelings such as those to **the firm conviction of the existence of God, and of the immortality of the soul**. In my Journal I wrote that while standing in the midst of the grandeur of a Brazilian forest, "it is not possible to give an adequate idea of the higher feelings of wonder, admiration, and devotion, which fill and elevate the mind." I well remember my conviction that **there is more in humans than the mere breath of the body**. But now the grandest scenes would not cause any such convictions and feelings to rise in my mind. It may be truly said that I am like a man who has become color-blind, and the universal belief by people of the existence of redness makes my present loss of perception of not the least value as evidence. This argument would be a valid one if all people of all races had the same inward conviction of the existence of one God; but we know that this is very far from being the case. Therefore I cannot see that such inward convictions and feelings are of any weight as evidence of what really exists. The state of mind which grand scenes formerly excited in me, and which was intimately connected with a belief in God, did not essentially differ from that which is often called the sense of the sublime; and however difficult it may be to explain the source of this sense, it can hardly be advanced as an argument for the existence of God, any more than the powerful though vague and similar feelings excited by music.

P 7 ¶ 3: Full quotation:

"With respect to the theological view of the question. This is always painful to me. I am bewildered. **I had no intention to write atheistically. But I own that I cannot see as plainly as others do, and as I should wish to do, evidence of design and beneficence on all sides of us. There seems to me too much misery in the world.** I cannot persuade myself that a beneficent and omnipotent God would have designedly created the Ichneumonidae [wasps] with the express intention of their [larva] feeding within the living bodies of Caterpillars, or that a cat should play with mice. Not believing this, I see no necessity in the belief that the eye was expressly designed. **On the other, I cannot anyhow be contented to view this wonderful universe, and especially the nature of man, and to conclude that everything is the result of brute force. I am inclined to look at everything as resulting from designed laws, with the details, whether good or bad, left to the working out of what we may call chance.** Not that this notion at all [original italics] satisfies me. I feel most deeply that the whole subject is too profound for the human intellect. A dog might as well speculate on the mind of Newton. Let each man hope and believe what he can. Certainly I agree with you that my views are not at all necessarily atheistical. The lightning kills a man, whether a good one or bad one, owing to the excessively complex action of natural laws. A child (who may turn out an idiot) is born by the action of even more complex laws, and I can see no reason why a man, or other animals, may not have been aboriginally produced by other laws, and that all these laws may have been expressly designed by an omniscient Creator, who foresaw every future event and consequence. But the more I think the more bewildered I become; as indeed I probably have

shown by this letter. Most deeply do I feel your generous kindness and interest. Yours sincerely and cordially, Charles Darwin" (Darwin to Asa Gray, [a minister] May 22, 1860)

P 9 ¶ 2: Makes the implication that little to no progress has been made concerning evolution over the past 150 years.

P 9 ¶ 4: DNA doesn't come together by "sheer chance". His book analogy is akin to the 747 in a junkyard analogy and completely straw-mans evolution.

P 10: Thaxton's paper: *DNA, Design and the Origin of Life*, was presented at *Jesus Christ: God and Man*, an international conference in Dallas, Texas, November 13-16, 1986 and he is a fellow of the Discovery Institute, so he is definitely biased.

P 10-11: Francis Collins is an openly religious scientist, although he doesn't seem to let his religion affect his scientific results. These are basically appeals to authority.

P 11 ¶ 2: Information doesn't require intelligence, a grain of sand has a lot of information in it if you were to try to record every aspect of it, but it was formed in the absence of intelligence.

P 11 ¶ 3: The comparisons between the DNA sequences of various species depends a lot on how you count the way they match. A pure one to one nucleotide comparison will yield very low results because an extra nucleotide would shift all others off by one. What they do instead is allow single strands of human and chimpanzee DNA to commingle and the base pairs will join where they match and the inconsistencies lead to weaknesses in the DNA which can be measured. Furthermore a figure like 86% is still very compelling evidence of common ancestry (just perhaps more distant in time).

P 11 ¶ 4: Tries to impress people with big numbers of differences in base pairs, based of course on assuming the lowest value of shared DNA. Rather than looking at all the research figures on the DNA common between humans and chimpanzees and picking a mean value.

P 11-12 ¶ 5: Tries to then twist the DNA commonality in favor of ID (can he make up his mind?) and he talks about architects borrowing materials and designs between different buildings. According to this view one wonders why some features of organisms for a

particular function seem to be so poorly (or indirectly) suited to that function. This is of course because as humans we have the luxury to compare evolutionary approaches to similar conditions among different species and determine (perhaps subjectively) which is best adapted.

P 13 ¶ 2: Finding something half-man half-monkey as the common ancestor is fallacious thinking. Going to the example used a few paragraphs previous, the 50% DNA commonality between bananas and humans doesn't mean that the common ancestor between them is half-man half-banana, that's just ridiculous.

P 13 ¶ 3: Evolution is said to have occurred in the past by virtue of it continually occurring. It isn't as though scientists say that all that evolution stuff is behind us, its just the fact that we live for such a short time that evolution is harder to perceive, but can of course still be observed.

P 13 ¶ 4: The quote from Grasse is refuted by the Lenski E. coli experiments, we have seen the process of evolution.

P 13 ¶ 5: The process of fossilization depends on very unique conditions and thus fossils are rare, but there are still fossils of almost every transition from one type of life to another. Furthermore to suggest that without fossil evidence, evolution would not be provable is a lie. The use of fossils to help prove evolution was and is due to its convenience compared to other types of evidence.

P 13 ¶ 6: Full quotation:

Long before having arrived at this part of my work, a crowd of difficulties will have occurred to the reader. Some of them are so grave that to this day I can never reflect on them without being staggered; but, to the best of my judgment, the greater number are only apparent, and those that are real are not, I think, fatal to my theory.

These difficulties and objections may be classed under the following heads: Firstly, **why, if species have descended from other species by insensibly fine gradations, do we not everywhere see innumerable transitional forms? Why is not all nature in confusion instead of the species being, as we see them, well defined?...**

As natural selection acts solely by the preservation of profitable modifications, each new form will tend in a fully-stocked country to take the place of, and finally to exterminate, its own less improved parent or other less-favoured forms with which it comes into competition.

Thus extinction and natural selection will, as we have seen, go hand in hand. Hence, if we look at each species as descended from some other unknown form, both the parent and all the transitional varieties will generally have been exterminated by the very process of formation and perfection of the new form.

But, **as by this theory innumerable transitional forms must have existed, why do we not find them embedded in countless numbers in the crust of the earth?** It will be much more convenient to discuss this question in the chapter on the Imperfection of the geological record; and I will here only state that I believe the answer mainly lies in the record being incomparably less perfect than is generally supposed; the imperfection of the record being chiefly due to organic beings not inhabiting profound depths of the sea, and to their remains being embedded and preserved to a future age only in masses of sediment sufficiently thick and extensive to withstand an enormous amount of future degradation; and such fossiliferous masses can be accumulated only where much sediment is deposited on the shallow bed of the sea, whilst it slowly subsides. These contingencies will concur only rarely, and after enormously long intervals. Whilst the bed of the sea is stationary or is rising, or when very little sediment is being deposited, there will be blanks in our geological history. The crust of the earth is a vast museum; but the natural collections have been made only at intervals of time immensely remote.

P 14 ¶ 1: First he says that the situation (fossil record) hasn't improved much over the last 150 years then says we have cataloged 100 million fossils.

P 14-15: He brings up fossil frauds to try to discredit the idea of transitional forms, of which numerous fossils exist. He also criticizes extrapolations from bone fragments which do indeed prove to be wrong sometimes, but a lot can be told from bone fragments and fragmentary fossils.

P 17 ¶ 4: A lack of evidence is not evidence to the contrary. Though saying there is a lack of evidence is still a complete misrepresentation of the facts.

P 17 ¶ 5: Horse evolution is clearly understood: [http://www.talkorigins.org/faqs/horses/horse\\_evol.html](http://www.talkorigins.org/faqs/horses/horse_evol.html)

P 18 ¶ 4: Full quotation:

On the sudden appearance of whole groups of Allied Species.—**The abrupt manner in which whole groups of species suddenly appear in certain formations, has been urged by several paleontologists**, for instance, by Agassiz, Pictet, and by none more forcibly than by Professor Sedgwick, **as a fatal objection to the belief in the transmutation of species. If numerous species, belonging to the same genera or families, have really started into life all at once, the fact would be fatal to the theory of descent with slow modification through natural selection.**

For the development of a group of forms, all of which have descended from some one progenitor, must have been an extremely slow process; and the progenitors must have lived long ages before their modified descendants. But we continually over-rate the perfection of the geological record, and falsely infer, because certain genera or families have not been found beneath a certain stage, that they did not exist before that stage. We continually forget how large the world is, compared with the area over which our geological formations have been carefully examined; we forget that groups of species may elsewhere have long existed and have slowly multiplied before they invaded the ancient archipelagoes of Europe and of the United States. We do not make due allowance for the enormous intervals of time, which have probably elapsed between our consecutive formations,—longer perhaps in some cases than the time required for the accumulation of each formation. These intervals will have given time for the multiplication of species from some one or some few parent-forms; and in the succeeding formation such species will appear as if suddenly created.

P 18 ¶ 5: I really don't think Comfort read the full paragraph above, he would see that Darwin was arguing against the type of argument in this paragraph. Again, a lack of evidence is not evidence to the contrary. Nothing showed up "virtually overnight" as Comfort puts it. The Cambrian Explosion took place over 70-80 million years and it may appear to be overnight because as humans we have a hard time of conceiving of such time scales and when looking at the strata of that time frame only accounts for several meters of rock (I don't know the real figure, but I hope you get my point). Furthermore the Cambrian explosion resulted in the formation of hard-bodied organisms that could fossilize much easier and thus a more distinct line appears than truly might have existed.

P 19 ¶ 6: Full quotation:

For example the Cambrian strata of rocks, vintage about 600 million years, are the oldest ones in which we find most of the major invertebrate groups. **And we find many of them already in an advanced state of evolution, the very first time they appear. It is as though they were just planted there, without any evolutionary history. Needless to say, this appearance of sudden planting has delighted creationists.** Evolutionists of all stripes believe, however, that this really does represent a very large gap in the fossil record, a gap that is simply due to the fact that, for some reason, very few fossils have lasted from periods before about 600 million years ago. One good reason might be that many of these animals had only soft parts to their bodies: no shells or bones to fossilize.

Just more of Comfort's quote mining.

P 20: The micro-macro distinction of evolution is misunderstood here. They both rely on the same underlying principles which Darwin established and to accept one is to accept the other. <http://www.talkorigins.org/faqs/faq-speciation.html>

P 20 ¶ 5: Comfort says "...responsibility on mutations to accidentally create complex new body parts..." Everyone who accepts evolution by natural selection knows that a single or hand full of mutations doesn't accidentally lead to a new body part. It is the accumulation of beneficial mutations through natural selection that may over a long period of time eventually lead to a new body part. Comfort really doesn't grasp the concept of natural selection it appears.

P 21 ¶ 3: Again I link here (5.3): <http://www.talkorigins.org/faqs/faq-speciation.html>

Fruit flies are very flexible in regard to speciation probably because of their fast reproductive rate. Now it's obvious that there are certain limitations to fruit fly mutation given certain generation constraints. But given the right environment and enough time a significant amount of change could occur.

P 21 ¶ 5: Characterizing a mutation as a typing error can only go so far. What he claims evolution puts forth isn't true. Nobody is saying that wings came out of nowhere. In fact the study of homology proves that nobody accepts such notions. Also the claim that the amount of genetic information would have to increase in order for a new body part to appear isn't strictly true. A mutation that affects embryological development could potentially lead to the activation of normally dormant DNA that can lead to unexpected results.

P 22 ¶ 2: Increases in genetic information are understood. Gene duplication and later mutation can increase the number of base pairs in the DNA. Just look at the cause of Down syndrome, an extra 21st chromosome and given different manifestations such gene duplication could be beneficial and thus be selected for. [http://aob.oxfordjournals.org/cgi/reprint/82/suppl\\_1/37.pdf](http://aob.oxfordjournals.org/cgi/reprint/82/suppl_1/37.pdf)

[Talk Origins explanation](#)

P 23 ¶ 2: Comfort was actually making some sense up until this point. A mutation is one of three types: beneficial, neutral or deleterious, the beneficial ones are defined as such by

making the organism better suited to its environment. The mutations are indeed rather random, but the process which acts upon them turns that randomness into a better adapted organism over many generations.

P 23 ¶ 3: Every stage of the development of the wing was indeed beneficial to the organism and because you can't think of how it was or was not beneficial doesn't make it untrue. Furthermore the idea that a wing forms from nothing is simply false. The more probable scenario is that an organism would benefit from the addition of another pair of limbs which then much later in time evolve into wings. Indeed looking at bat evolution and asking what purpose was a proto-wing would be silly, it was clearly derived from its forelimbs as homology can show. The evolution of limbs does indeed have much greater incremental benefits in its development.

P 23 ¶ 5: The Gould article tries to address the question that is posed in the quotation and if Comfort actually bothered to read it, he might stop wondering how a wing could evolve. The concept of the functional shift of an organ or appendage from one purpose to an unrelated but also beneficial purpose is clearly understood by evolutionary biologists.

P 23 ¶ 6: Michael Denton is another one of the few creationist 'scientists'

P 24: I really don't see the point of these cartoons other than to try to discredit Darwin or to show the historical context in which his ideas were received, Comfort is of course doing the former.

P 25 ¶ 1: Comfort is equivocating the word 'purposeful', the mutation doesn't have a purpose in the act of occurring, but the manifestation of the mutation in the organism may serve a purpose. Secondly nobody claims that mutations alone create transitional forms, but rather mutations, natural selection and perhaps environmental change work in conjunction to lead to speciation. Finally, it doesn't matter if 150 scientists or 10,000 don't believe in evolution by natural selection, it is still a demonstrable fact.

P 25 ¶ 3: Denton is not an evolutionist, Comfort uses this title to make a schism where one doesn't exist.

P 25 ¶ 4: Denton's appeal to common sense is completely unscientific, many things in science go against common sense (quantum theory?) and this is why they have to be tested by the scientific method.

P 26 ¶ 2: Environmental change doesn't affect the 'direction of mutation' (whatever that means), but it does change what characteristics are selected for and thus change in a very noticeable direction over time can be seen. I don't know why Comfort thinks that the fact that environmental conditions don't affect the randomness of mutation is a big flaw in evolutionary theory. It really just stems from ignorance about the process of natural selection.

P 27: Comfort tries to show the circulatory system as irreducibly complex even though his list of animals with different degrees of heart complexity illustrates the fact that evolution can indeed occur. The evolution of the heart occurred very early in the history of multicellular life because it is necessary to support organisms above a certain size. So unfortunately the evolution of the early heart will probably not be seen in fossil evidence. However postulation on the development of the early heart can be extrapolated from the existing and relatively simple hearts in organisms like worms.

[Powerpoint on evolution of circulatory system](#)

P 27 ¶ 8: The eye argument has thoroughly been debunked and every stage of the evolution can be seen going from eye-spots to pit-eyes to lens-less eyes to lens eyes. Barely worth refuting when the work has already been done.

P 28: The eye is not the most perfect instrument that Comfort claims it is. The peripheral

resolution is very low, there is a blind spot, at the very focus of our retina (the fovea) we have densely packed cones with no rods so in the dark it is harder to perceive light sources when looking directly at them (star gazers use a technique called averted vision to avoid this problem).

P 28 ¶ 7: Full quotation (perhaps the most commonly mined quote of Darwin):

To suppose that the eye, with all its inimitable contrivances for adjusting the focus to different distances, for admitting different amounts of light, and for the correction of spherical and chromatic aberration, could have been formed by natural selection, seems, I freely confess, absurd in the highest possible degree. Yet reason tells me, that if numerous gradations from a perfect and complex eye to one very imperfect and simple, each grade being useful to its possessor, can be shown to exist; if further, the eye does vary ever so slightly, and the variations be inherited, which is certainly the case; and if any variation or modification in the organ be ever useful to an animal under changing conditions of life, then the difficulty of believing that a perfect and complex eye could be formed by natural selection, though insuperable by our imagination, can hardly be considered real. How a nerve comes to be sensitive to light, hardly concerns us more than how life itself first originated; but I may remark that several facts make me suspect that any sensitive nerve may be rendered sensitive to light, and likewise to those coarser vibrations of the air which produce sound.

P 29 ¶ 2: Claiming that advanced eyes are found in simple creatures is a very subjective evaluation. Through the evolutionary prism one would look at things as adaptive or maladaptive and I'm certain that a 'simple' creature with 'advanced' eyes would be seen to be very adaptive on the whole.

P 30 ¶ 5: The term 'devolution' is a complete misrepresentation evolution does not necessarily lead to more complexity but rather to better adaption to the environment. In fact when one considers the fact that resources are no longer being wasted on building and maintaining a vestigial organ it certainly seems like a sensible change (I use the word sensible hesitantly).

P 30 ¶ 6: Although there may be residual uses for what are commonly considered vestigial organs this is in fact still proof of evolution in the sense that the organ has undergone functional shift which Comfort completely ignored the idea of earlier. There are still good examples of vestigial organs or 'vestigial' body plans such as the recurrent laryngeal nerve.

P 31 ¶ 2-3: I really don't understand this argument; is it meant to counter evolution or the big-bang theory? The fact that humans can't create something from nothing stems from the conservation of mass. This doesn't disprove the big-bang theory either since (according to my understanding) nothing other than speculation has been done about what existed at times previous to one plank time after the big bang, although work is being done in that direction. But more to the point, evolution and abiogenesis are separate issues and they both conserve mass.

P 31-39: First of all whether or not Darwin's other ideas about the world were wrong is of no relevance to the truth of his theory of evolution. Secondly the application of Darwinian ideas outside of the scope of biology indeed show the danger of not truly understanding Darwin's ideas. Also, the historical context of any scientist must be taken into account, not as a justification for bad ideas, but rather to understand why an otherwise reasonable person would hold other unreasonable beliefs. It is known that Newton practiced alchemy and looked for biblical codes, but nobody discredits calculus for that.

P 39 ¶ 2: Darwin's views on religion are irrelevant to its acceptance among atheists.

Furthermore there is a strong correlation between atheism and acceptance of evolution, but there is no causal link. Atheism is only a response to theism and therefore has no dogma or

set of beliefs that all atheists should hold. The same is true for morality.

P 39 ¶ 3: Comfort playing atheists-advocate isn't very convincing. No reasonable person claims that everything came from nothing and he doesn't clarify if he means this in the cosmological or biological sense. The fact that Comfort can't conceive of how the universe could start or how abiogenesis could occur is by no means a refutation of those ideas.

P 39 ¶ 4: Things may appear to be designed or too perfectly fined tuned for life to exist, but it has to be kept in mind that as humans we are very prone to seeing patterns and 'design' when they don't exist. The idea that the universe is so finely tuned for life only exists in our minds because there are minds to think about it.

P 40 ¶ 1 & 3: Argumentum ad populum: a lot of people can believe some very silly ideas, we just have to look at history for examples.

P 40 ¶ 4: Religious scientists is more a sign of the time and god-of-the-gaps approach rather than a benefit to science. Keep in mind the church actively worked against many of the scientists listed.

P 40 ¶ 6: Getting from intelligent designer to the god of the Bible is an impossible task in my view because any intelligent designer can only be judged on the merit of the designs. These designs do not point to a three-O god.

P 41-46: Comfort judges which religion is correct based on ideas from the Bible (Why would a Buddhist be worried about the "reality of hell"). I also find it interesting how he leaves out Judaism since his stupid analogy doesn't really work if that were included. His critiques of other religion's approaches to the 'leap' try to use common sense arguments about why their ideas are ridiculous, but says nothing about their truth value.



