Jehovah's Witnesses and the Truth

Misquotations in the Creation Book

This is a list of passages from the Jehovah's Witness publication "Life-How Did It Get Here-By Evolution or by Creation?", 1985, referred to below as the Creation book. I show what the Creation book says, what the original reference text says with some context and then I explain what I think is wrong with the usage of the reference by the Creation book. I also highlight what I think are the worst examples and indicate if a reference has been listed by other researchers that I am aware of. The purpose of this information is not to convince anyone that the theory of evolution is true, it is simply to expose the deception in the Creation book.

For some of the worst examples, see numbers 2, 38, 46, 49, 50, 64, 66 and 67.

1	Creation book Ch 1 page 9 par 6	… even evolution's best-known advocate, Charles Darwin, indicated an awareness of his theory's limitations. … he wrote of the grandeur of the 'view of life, with its several powers, having been originally breathed by the Creator into a few forms or into one,' thus making it evident that the subject of origins was open to further examination.
	Context from Origins of Species, Mentor edition, 1958 p450	It is no valid objection [to evolution] that science as yet throws no light on the far higher problem of the essence or origin of life. ... It is interesting to contemplate a tangled bank …. and to reflect that these elaborately constructed forms …. have all been produced by laws acting around us. These laws, taken in the largest sense, being Growth with Reproduction; Inheritance, which is almost implied by reproduction; Variability from indirect and direct action of the conditions of life, and from use and disuse; a Ratio of increase so high as to lead to a Struggle for Life, and as a consequence to Natural Selection, entailing Divergence of Character and the Extinction of less-improved forms. Thus, from the war of nature, from famine and death, the most exalted object which we are capable of conceiving, namely the production of the higher animals, directly follows. There is grandeur in this

		view of life, with its several powers, having been originally breathed by the Creator into a few forms or into one; and that, whilst this planet has gone cycling on according to the fixed laws of gravity, from so simple a beginning endless forms most beautiful and most wonderful have been and are being evolved.
	Comments	Darwin here did not indicate an awareness of his theory's limitations with regard to explaining the origin of species. The grandeur he spoke of was of his description of the laws driving evolution. He was not indicating that the subject of the origin of species was open to further examination. *Also listed by: Mario Di Maggio*
2	Creation book Ch 2 page 15 par 4	The scientific magazine Discover put the situation this way: "Evolution . . . is not only under attack by fundamentalist Christians, but is also being questioned by reputable scientists. Among paleontologists, scientists who study the fossil record, there is growing dissent."
	Context from James Gorman, "The Tortoise or the Hare?", Discover, October 1980, p. 88	Charles Darwin's brilliant theory of evolution, published in 1859, had a stunning impact on scientific and religious thought and forever changed man's perception of himself. Now that hallowed theory is not only under attack by fundamentalist Christians, but is also being questioned by reputable scientists. Among paleontologists, scientists who study the fossil record, there is growing dissent from the prevailing view of Darwinism. . . . Most of the debate will center on one key question: Does the three-billion-year-old process of evolution creep at a steady pace, or is it marked by long periods of inactivity punctuated by short bursts of rapid change? Is Evolution a tortoise or a hare? Darwin's widely accepted view -- that evolution proceeds steadily, at a crawl -- favors the tortoise. But two paleontologists, Niles Eldredge of the American Museum of Natural History and Stephen Jay Gould of Harvard, are putting their bets on the hare.
	Comments	The validity of the theory of evolution is not being questioned by reputable scientists. There was dissent by a few scientists from the prevailing view of Darwinism regarding the pace of evolution. The meaning of the reference text

		has been thoroughly mis-represented.
	Severity: Very bad	*Also listed by: JWfacts, Jan Haugland, Mario Di Maggio*
3	Creation book Ch 2 page 15 par 4	Francis Hitching, an evolutionist and author of the book The Neck of the Giraffe, stated: "For all it's acceptance in the scientific world as the great unifying principle of biology, Darwinism, after a century and a quarter, is in a surprising amount of trouble."
	Context from Francis Hitching, The Neck of the Giraffe, 1982, p. 12	For all its acceptance in the scientific world as the great unifying principle of biology, Darwinism, after a century and a quarter, is in a surprising amount of trouble. Evolution and Darwinism are often taken to mean the same thing. But they don't. Evolution of life over a very long period of time is a fact, if we are to believe evidence gathered during the last two centuries from geology, paleontology (the study of fossils), molecular biology and many other scientific disciplines.
	Comments	The author's distinction between Darwinism and evolution is omitted, as is his suggestion that evolution is a fact. Page 73 of the Creation book says that Hitching is a scientist, however according to "Contemporary Authors Vol 103", Hitching has only a high school education and an interest in the paranormal. He is not a scientist.
	Severity: Bad	*Also listed by: Jan Haugland, Mario Di Maggio*
4	Creation book Ch 2 page 15 par 6	Paleontologist Niles Eldredge, a prominent evolutionist, said: "The doubt that has infiltrated the previous, smugly confident certitude of evolutionary biology's last twenty years has inflamed passions." He spoke of the "lack of total agreement even within the warring camps," and added, "things really are in an uproar these days . . . Sometimes it seems as though there are as many variations on each [evolutionary] theme as there are individual biologists."
	Context from	... evolutionary biologists of diverse stripe have been actively engaged in their

	Natural History, "Evolutionary Housecleaning," by Niles Eldredge, February 1982, pp. 78, 81	first intellectual housecleaning in 50 years ... the doubt that had infiltrated the previous, smugly confident certitude of evolutionary biology's last twenty years has inflamed passions and provoked some very interesting thought and research. In short, evolutionary biology has entered a phase of creativity that is the hallmark of good, active science ... I disagree with some of Stanley's biology: his notion of "chronospecies" is inconsistent with the view that species are individuals, and his ideas on "quantum speciation" strike me as in some ways extreme. I mention this only to illustrate the lack of total agreement even within the warring camps: things really are in an uproar these days, and each of the "basic" ways of looking at evolution has its minor variants. Sometimes it seems as though there are as many variations on each theme as there are individual biologists. But that's as it should be; this is how science is supposed to operate.
	Comments	The source text is a book review. When read in context it is clear that evolution is not under assault and it is not being doubted. The disagreements relate to details of the mechanics of evolution. *Also listed by: JWfacts*
5	Creation book Ch 2 page 17 par 9	an increasing number of scientists, most particularly a growing number of evolutionists . . . argue that Darwinian evolutionary theory is no genuine scientific theory at all. . . . Many of the critics have the highest intellectual credentials.
	Context from New Scientist, "Darwin's Theory: An Exercise in Science," by Michael Ruse, June 25, 1981, p. 828	Although still a minority, an increasing number of scientists, most particularly a growing number of evolutionists (particularly academic philosophers), argue that Darwinian evolutionary theory is no genuine scientific theory at all. They are joined by an increasing number of laypeople, from whom we learn that it is "metaphysical", and although we are assured that no slight is intended, it is not long before such terms as "inadequate" and "dismal" start to slip into the talk. Of one thing we can be certain. Such critics certainly do not think that modern Darwinian evolutionary theory measures up to "real" scientific theories, like those of physics and chemistry. I do not suggest that the

		scientific and philosophical critics of Darwin are in bed with the creationists. Many of the critics have the highest intellectual credentials. Nor would I plead for an end to debate and for total uniformity. Open discussion is the strength and joy of science; … But I would argue that is just plain silly needlessly to undercut one's own theory, given the external threats, and given that the arguments for undercutting are appallingly bad. Which they are. Scientists armed with half-baked philosophical ideas-usually some bastardisation of Karl Popper's principal of falsification-and philosophers, neither armed nor unarmed with any real scientific knowledge at all, join to do discredit to both of their subjects. And neo-Darwinism suffers unjustly.
	Comments	The reference text points out that the critics are academic philosophers and that their arguments are appallingly bad.
6	Creation book Ch 2 page 17 par 9	Regarding the question of how life originated, astronomer Robert Jastrow said: "To their chagrin [scientists] have no clear-cut answer, because chemists have never succeeded in reproducing nature's experiments on the creation of life out of nonliving matter. Scientists do not know how that happened." He added: "Scientists have no proof that life was not the result of an act of creation."
	Context from The Enchanted Loom: Mind in the Universe, by Robert Jastrow, 1981, p. 19	Scientists have no proof that life was not the result of an act of creation, but they are driven by the nature of their profession to seek explanations for the origin of life that lie within the boundaries of natural law. They ask themselves, "How did life arise out of inanimate matter? And what is the probability of that happening?" And to their chagrin they have no clear-cut answer, because chemists have never succeeded in reproducing nature's experiments on the creation of life from nonliving matter. Scientists do not know how that happened, and furthermore, they do not know the chance of it happening …. But while scientists must accept the possibility that life may be an improbable event, they have some tentative reasons for thinking that its appearance on earthlike planets is, in fact, fairly commonplace.
	Comments	The Creation book mixes up discussion about the origin of life with evolution

		to make it appear that scientists have doubts about the theory of evolution. Even so, according to the reference text, there are reasons to expect that life on earthlike planets is fairly commonplace which is not the impression the Creation book conveys.
7	Creation book Ch 2 page 18 par 11, 12	A problem for evolution has been the fact that all parts of such organs have to work together for sight, hearing or thinking to take place. Such organs would have been useless until all the individual parts were completed. ... Darwin acknowledged this as a problem. For example, he wrote: "To suppose that the eye . . . could have been formed by [evolution], seems, I freely confess, absurd in the highest degree.
	Context from The Origin of Species, by Charles Darwin, 1902 edition, Part One, p. 250	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 degree. When it was first said that the sun stood still and the world turned round, the common sense of mankind declared the doctrine false; but the old saying of Vox populi, vox Dei, as every philosopher knows, cannot be trusted in science. Reason tells me, that if numerous gradations from a simple and imperfect eye to one complex and perfect can be shown to exist, each grade being useful to its possessor, as is certainly the case; if further, the eye ever varies and the variations be inherited, as is likewise certainly the case; and if such variations should be useful to any 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, should not be considered as subversive of the theory.
	Comments	Darwin was saying that the supposition SEEMED absurd but then he immediately explained why it was not. Rather than acknowledging this as a problem, he said it "should not be considered as subversive of the theory".
	Severity: Very bad	*Also listed by: JWfacts, Jan Haugland, Mario Di Maggio*

8	Creation book Ch 2 page 18 par 12	The eye appears to have been designed; no designer of telescopes could have done better.
	Context from The Enchanted Loom: Mind in the Universe, by Robert Jastrow, 1981, p. 96	Page 96: The eye appears to have been designed; no designer of telescopes could have done better. Page 97: But his summation of the arguments for the evolution of the human eye is masterful: {Jastrow then reproduces Darwin's explanation for the eye}
	Comments	Jastrow, like Darwin, acknowledges an apparent problem but then immediately explains the elegant solution, in fact, to do this he quotes directly from Darwin on page 97.
9	Creation book Ch 2 page 18 par 13	It is hard to accept the evolution of the human eye as a product of chance; it is even harder to accept the evolution of human intelligence as the product of random disruptions in the brain cells of our ancestors.
	Context from The Enchanted Loom: Mind in the Universe, by Robert Jastrow, 1981, p. 100	Jastrow says on page 101 that "The fact of evolution is not in doubt."
	Comments	The impression is given that Jastrow is doubting evolution but that is not the case.
10	Creation book Ch 2 page 19 par 14	If evolution were a fact, surely in all of this there should be ample evidence of one kind of living thing evolving into another kind. But the Bulletin of Chicago's Field Museum of Natural History commented: "Darwin's theory of [evolution] has always been closely linked to evidence from fossils, and probably most people assume that fossils provide a very important part of the general argument that is made in favor of Darwinian interpretations of the history of life. Unfortunately, this is not strictly true."
	Context from	It is clear that fossilization is a very chancy process and that the vast majority

	Field Museum of Natural History Bulletin, Chicago, "Conflicts Between Darwin and Paleontology," by David M. Raup, January 1979, pp. 22, 23, 25	of plants and animals of the past have left no record at all ... Darwin's theory of natural selection has always been closely linked to evidence from fossils, and probably most people assume that fossils provide a very important part of the general argument that is made in favor of Darwinian interpretations of the history of life. Unfortunately, this is not strictly true. We must distinguish between the fact of evolution - defined as the change in organisms over time - and the explanation of this change. Darwin's contribution, through his theory of natural selection, was to suggest how the evolutionary change took place. The evidence we find in the geologic record is not nearly as compatible with Darwinian natural selection as we would like it to be. Darwin was completely aware of this.
	Comments	The Creation book substitutes "evolution" for "natural selection" even though the reference explains the importance of the distinction between those two terms. Various references close to ones used in the Creation book (for example New Scientist, 25 June 1981 "Who doubts evolution?", by Mark Ridley page 831) explain that fossils have never been relied on as evidence for evolution, so this is a straw-man argument by the Creation book.
	Severity: Very bad	*Also listed by: Mario Di Maggio*
11	Creation book Ch 2 page 21 par 16	This failure of the fossil evidence to support gradual evolution has disturbed many evolutionists. In The New Evolutionary Timetable, Steven Stanley spoke of "the general failure of the record to display gradual transitions from one major group to another." He said: "The known fossil record is not, and never has been, in accord with [slow evolution]."
	Context from The New Evolutionary Timetable, by Steven M. Stanley, 1981, pp. 71, 77	The known fossil record is not, and never has been, in accord with gradualism. (p71) The point here is that if the transition was typically rapid and the population small and localized, fossil evidence of the event would never be found. The other aspect of this argument is that the general failure of the record to display gradual transitions from one major group to another did not reflect a poor record for large, well-established species, but the slow evolution of such species: full-fledged species are not the entities that

		undergo the majority of evolutionary changes. (p77)
	Comments	There is no evidence in the reference to suggest that many evolutionists were disturbed by the fossil evidence for gradualism. Steven Stanley was not, rather he explained why the evidence might not be there.
12	Creation book Ch 2 page 21 par 17,18	Science Digest put it this way: "Some scientists are proposing even more rapid evolutionary changes and are now dealing quite seriously with ideas once popularized only in fiction." For instance, some scientists have concluded that life could not have arisen spontaneously on earth.
	Context from Science Digest, "Miracle Mutations," by John Gliedman, February 1982, p. 92	. . . Huxley emphasised that apparently trivial differences between the genetically determined growth rates for different body parts can produce dramatic changes in physical proportions over an individual's lifetime. . . . And the factual evidence we possess . . . indicates that a mutation can act on a growth gradient as a whole, thus simultaneously altering the proportions of a large number of parts. . . . they suggest a staggering number of ways that changes in these strategic genetic networks could trigger evolutionary leaps far more dramatic than any envisioned by the gradualist Huxley. . . . They advise caution however. "Speculation is free", warns British zoologist Volin Patterson. "We know nothing about these regulatory master genes." The fact that such genes exist, he says, is only an informed guess. Yet some scientists are proposing even more rapid evolutionary changes and are now dealing quite seriously with ideas once popularized only in fiction. Gene Shuffling Researchers know from basic cell theory, for example, that regulatory and structural genes are shuffled twice during sexual reproduction . . .
	Comments	The Creation book leaps from discussion on evolutionary change to speculation on the origin of life, and suggests that that was one of the ideas being referred to in Science Digest. Science Digest was referring to gene shuffling theories and not the origin of life.
	Severity: Bad	

13	Creation book Ch 2 page 24 par 26	As John R. Durant, a biologist, wrote in The Guardian of London: "Many scientists succumb to the temptation to be dogmatic, . . . over and over again the question of the origin of the species has been presented as if it were finally settled. Nothing could be further from the truth. . . . But the tendency to be dogmatic persists, and it does no service to the cause of science."
	Context from The Guardian, London, "Beginning to Have Doubts," by John Durant, December 4, 1980, p. 15	It is often said that fundamental research does not deal with philosophical truths but rather with provisional theories, and that it requires of it's practitioners the ability to live with almost endless uncertainty. In practice, however, many scientists succumb to the temptation to be dogmatic, seizing upon any new idea with almost missionary zeal, and presenting well-confirmed theories as if they were immutable facts. . . . over and over again the question of the origin of the species has been presented as if it were finally settled. Nothing could be further from the truth. . . . . The theory of evolution by natural selection is really two theories, not one . . . . . the case for evolution was (and still is) so convincing that, once the initial shock of the idea had passed, it ceased to be a matter of biological argument. With the theory of natural selection however, the situation was different . . .Today, these issues are far from settled. There is still disagreement about the relative importance of natural selection and other evolutionary mechanisms such as genetic drift. . . . But the temptation to be dogmatic persists, and it does no service to the cause of science. At best it is misleading, and at worst it strengthens the hands of those who seek to oppose scientific theories for quite the wrong reasons.
	Comments	The Creation book picks out parts of sentences to change the meaning. The reference clearly states that the case for evolution is settled and remaining disagreements about natural selection are about the details.Ironically, one of the reasons given in the reference for eschewing dogma is to avoid strengthening the hand of those who oppose scientific theories for the wrong reasons.
	Severity: Bad	

14	Creation book Ch 4 page 39 par 5	At this point a reader may begin to understand Dawkins' comment in the preface to his book: "This book should be read almost as though it were science fiction."
	Context from Richard Dawkins, The Selfish Gene, 1976, p. ix	This book should be read almost as though it were science fiction. It is designed to appeal to the imagination. But it is not science fiction: it is science. Cliché or not, "stranger than fiction" expresses exactly how I feel about the truth.
	Comments	Dawkins immediately explained his use of the term "science fiction" but the Creation book encourages a different and incorrect understanding of his words.
	Severity: Bad	*Also listed by: JWfacts, Jan Haugland, Mario Di Maggio*
15	Creation book Ch 4 page 41 par 9	The synthesis of compounds of biological interest takes place only under reducing [no free oxygen in the atmosphere] conditions.
	Context from The Origins of Life on the Earth, by Stanley L. Miller and Leslie E. Orgel, 1974, p. 33	We believe that there must have been a period when the earth's atmosphere was reducing, because the synthesis of compounds of biological interest takes place only under reducing conditions. . . . Fortunately everyone agrees that although the primitive atmosphere may not have been strongly reducing, it certainly did not contain more than a trace of molecular oxygen.
	Comments	The Creation book is trying to create doubt about whether the primitive atmosphere was reducing. They contradict the reference they have just quoted and do not offer any evidence to support their position.
	Severity: Very bad	
16	Creation book Ch 4 page 42 par 14	Chemist Richard Dickerson explains: "It is therefore hard to see how polymerization [linking together smaller molecules to form bigger ones] could have proceeded in the aqueous environment of the primitive ocean, since the presence of water favors depolymerization [breaking up big molecules into simpler ones] rather than polymerization."

	Context from Scientific American, "Chemical Evolution and the Origin of Life," by Richard E. Dickerson, September 1978, p. 75. This quotation is actually from page 67 of the article.	It is therefore hard to see how polymerization could have proceeded in the aqueous environment of the primitive ocean, since the presence of water favors depolymerization rather than polymerization. We shall have to face up to this difficulty, but first let us see how the monomers could have arisen.
	Comments	The Creation book is implying that Dickerson did not know how polymerisation could occur, whereas the article goes on to explain how it could happen.
	Severity: Very bad	*Also listed by: JWfacts, Jan Haugland, Mario Di Maggio*
17	Creation book Ch 4 page 42 par 14	Biochemist George Wald agrees with this view, stating: "Spontaneous dissolution is much more probable, and hence proceeds much more rapidly, than spontaneous synthesis." This means there would be no accumulation of organic soup! Wald believes this to be "the most stubborn problem that confronts us [evolutionists]."
	Context from Scientific American, "The Origin of Life," by George Wald, August 1954, pp. 49, 50	In the vast majority of processes in which we are interested the point of equilibrium lies far over towards the side of dissolution. That is to say, spontaneous dissolution is much more probable, and hence proceeds much more rapidly, than spontaneous synthesis. . . . A living organism is an intricate machine for performing exactly this function. . . .What we ask here is to synthesize organic molecules without such a machine. I believe this to be the most stubborn problem that confronts us - the weakest link at present in our argument. I do not think it by any means disastrous, but it calls for phenomena and forces some of which are yet only partly understood and some probably still to be discovered.
	Comments	The Wald article was written 24 years before the Dickerson article at a time when such experiments were just starting to be performed. Despite this, the article goes on to describe several known ways that complex organic molecules can form and remain stable but the Creation book ignores that.

Severity: Bad

18	Creation book Ch 4 page 43 par 16	Physicist J. D. Bernal acknowledges: "It must be admitted that the explanation . . . still remains one of the most difficult parts of the structural aspects of life to explain." He concluded: "We may never be able to explain it."
	Context from The Origin of Life, by John D. Bernal, 1967, p. 144	It must be admitted that the explanation of chirality still remains one of the most difficult aspects of the structural aspects of life to explain. It is quite understandable why Pasteur, as a chemist, made it the basis of his whole theory of biology. We may never be able to explain it because it may be a consequence of one singular event of which the decision between a right- or left-handed molecular structure was determined by chance, and the chirality of all the rest of molecular structures was henceforth thereby determined.
	Comments	The context explains that the left-handedness of molecules is probably of no consequence and therefore not necessary to explain.
19	Creation book Ch 4 page 44 par 20	But this membrane is extremely complex, made up of protein, sugar and fat molecules. As evolutionist Leslie Orgel writes: "Modern cell membranes include channels and pumps which specifically control the influx and efflux of nutrients, waste products, metal ions and so on. These specialised channels involve highly specific proteins, molecules that could not have been present at the very beginning of the evolution of life."
	Context from New Scientist, "Darwinism at the Very Beginning of Life," by Leslie Orgel, April 15, 1982, p. 151	Modern cell membranes include channels and pumps which specifically control the influx and efflux of nutrients, waste products, metal ions and so on. These specialised channels involve highly specific proteins, molecules that could not have been present at the very beginning of the evolution of life. An impermeable membrane, without specific channels would have been a disadvantage rather than an advantage because it would have kept the useful components of the prebiotic medium outside and beyond the reach of the "cell's" machinery. . . . The development of a continuous membrane probably

		occurred relatively late, after complex metabolic pathways had evolved.
	Comments	The Creation book is trying to prove that a cell is too complex to form by chance, however the context of the reference explains that early version of the cell would not have required the complexity present in modern cells.
	Severity: Bad	
20	Creation book Ch 4 page 45 par 21	The chance of forming even the simplest of these histones is said to be one in 20^100-another huge number "larger than the total of all the atoms in all the stars and galaxies visible in the largest astronomical telescopes."
	Context from Evolution From Space, by Fred Hoyle and Chandra Wickramasinghe, 1981, p. 27	To obtain what is an essentially unique sequence by random choices from equal quantities of twenty kinds of amino acid would require of the order of 20^100 trials (there being about 100 amino acids in the sequence). Once again, we have a number larger than the total of all the atoms in all the stars and galaxies visible in the largest astronomical telescopes. . . . The histones have rather high proportions of the amino acids lysine and arginine, so one could shade the probabilities a little (of their forming by random associations of amino acids) by supposing them to arise in a 'soup' that was especially rich in lysine and arginine.
	Comments	The Creation book omits the explanation that the probability applies when there are "random choices from equal quantities". In practice, that is not how chemical reactions proceed.
	Severity: Bad	
21	Creation book Ch 4 page 45 par 22	Hitching says: "Proteins depend on DNA for their formation. But DNA cannot form without pre-existing protein." This leaves the paradox Dickerson raises: "Which came first," the protein or the DNA? He asserts: "The answer must be, "They developed in parallel." In effect he is saying that 'the chicken' and 'the egg' must have evolved simultaneously, neither one coming from the other. Does this strike you as reasonable?

	Context from Scientific American, September 1978, p. 73. Note that this reference to Dickerson is actually from page 78.	From the beginning of the same article on page 62: Plausible mechanisms have been demonstrated for synthesizing under primitive terrestrial conditions most of the monomers, or simple molecules, needed by the living cell. Some of these monomer units are assembled into two broad classes of polymers: nucleic acids, which embody and transmit the hereditary material, and proteins, of which some serve as structural materials and others as enzymes for catalyzing the scores of complex chemical reactions that underlie both metabolism and reproduction ... a number of plausible pathways have been demonstrated.
	Comments	Dickerson had already suggested in his article how proteins could form without DNA, and how nucleic acids could be polymerized without enzymes.
22	Creation book Ch 4 page 51 par 31	One has only to contemplate the magnitude of this task, Professor Wald of Harvard University acknowledges, "to concede that the spontaneous generation of a living organism is impossible." But what does this proponent of evolution actually believe? He answers: "Yet here we are-as a result, I believe, of spontaneous generation." Does that sound like objective science?
	Context from Scientific American, August 1954, p. 46	Continuing on to page 47: . . . It will help to digress for a moment to ask what one means by "impossible". . . . Our everyday concept of what is impossible, possible or certain derives from our experience: the number of trials that may be encompassed within the space of a human lifetime, or at most within human history. In this colloquial, practical sense I concede the spontaneous origin of life to be "impossible". It is impossible as we judge events in the scale of human experience. We shall see that this is not a very meaningful concession. . . . But even within the bounds of our own time there is a serious flaw in our judgement of what is possible.
	Comments	The meaning of the passage has been completely changed by omitting the context where he explains what he means by "impossible".

Severity: Very bad

23	Creation book Ch 4 page 51 par 32	British biologist Joseph Henry Woodger characterized such reasoning as "simple dogmatism-asserting that what you want to believe did in fact happen." How have scientists come to accept in their own minds this apparent violation of the scientific method? The well-known evolutionist Loren Eiseley conceded: "After having chided the theologian for his reliance on myth and miracle, science found itself in the unenviable position of having to create a mythology of its own: namely, the assumption that what, after long effort, could not be proved to take place today had, in truth, taken place in the primeval past."
	Context from The Immense Journey, by Loren Eiseley, 1957, p. 200. Ibid., p. 199.	After having chided the theologian for his reliance on myth and miracle, science found itself in the unenviable position of having to create a mythology of its own: namely, the assumption that what, after long effort, could not be proved to take place today had, in truth, taken place in the primeval past. My use of the term mythology is perhaps a little harsh. One does occasionally observe, however, a tendency for the beginning zoological textbook to take the unwary reader by a hop, skip, and jump from the little steaming pond or the beneficent crucible of the sea, into the lower world of life with such sureness and rapidity that it is easy to assume that there is no mystery about this matter at all, or if there is, that it is a very little one. This attitude has indeed been sharply criticised by the distinguished British biologist Woodger, who remarked some years ago . . .
	Comments	When seen in context, the remarks were made in reference to "the beginning zoological textbook" and would certainly not have been referring to work like that done by Wald which is what the Creation book is suggesting.
24	Creation book Ch 4 page 52 grey box	One has only to contemplate the magnitude of this task to concede that the spontaneous generation of a living organism is impossible.-Biochemist George Wald
	Context from	See par 31

	Scientific American, August 1954, p. 46.	
	Comments	Repitition of the deception in paragraph 31 even further out of context.
	Severity: Very bad	

25	Creation book Ch 5 page 54 par 2	Why are fossils important to evolution? Geneticist G. L. Stebbins noted a major reason: "No biologist has actually seen the origin by evolution of a major group of organisms." So, living things on earth today are not seen to be evolving into something else.
	Context from Processes of Organic Evolution, by G. Ledyard Stebbins, 1971, p. 1	To be sure, no biologist has actually seen the origin by evolution of a major group of organisms. Nevertheless, races and species have been produced by duplicating in the laboratory and garden some of the evolutionary processes known to take place in nature. The reason that major steps in evolution have never been observed is that they require millions of years to be completed.
	Comments	The conclusion in the Creation book is not supported by the reference and there is nothing in the source text to suggest that this is why fossils are important.
	Severity: Very bad	

26	Creation book Ch 5 page 54 par 2	The living world is not a single array . . . connected by unbroken series of intergrades.
	Context from Genetics and the Origin of Species, by Theodosius Dobzhansky, 1951, p. 4	The living world is not a single array of individuals in which any two variants are connected by unbroken series of intergrades.
	Comments	Omitting the middle of the sentence changes the meaning. The original sentence implies that some variants are connected by an unbroken series of intergrades.
	Severity: Very bad	

27	Creation book Ch 5 page 54 par 2	And Charles Darwin conceded that "the distinctness of specific [living] forms and their not being blended together by innumerable transitional links, is a very obvious difficulty."
	Context from The Origin of Species, by Charles Darwin, 1902 edition, Part Two, p. 54. I quote from the 6th edition	In the sixth chapter I enumerated the chief objections which might be justly urged against the views maintained in this volume. Most of them have now been discussed. One, namely, the distinctness of specific forms and their not being blended together by innumerable transitional links, is a very obvious difficulty. I assigned reasons why such links do not commonly occur . . .
	Comments	Darwin does provide, in the following pages explanations for there not being many intermediate forms between species.
28	Creation book Ch 5 page 56 par 6	New Scientist says of the theory: "It predicts that a complete fossil record would consist of lineages of organisms showing gradual change continuously over long periods of time."
	Context from New Scientist, book review by Tom Kemp of The New Evolutionary Timetable by Steven M. Stanley, February 4, 1982, p. 320	Until very recently, fossil evidence played almost no role in the formulation of idea about the mechanism of evolution because of its manifest incompleteness. . . . This gradualistic model . . . predicts that a complete fossil record would consist of lineages of organisms showing gradual change continuously over long periods of time.
	Comments	The source text is only saying what the gradualistic model would predict if the fossil record was complete. The Creation book also ignores the first sentence which discredits the importance the Creation book gives to the fossil record.
	Severity: Very bad	
29	Creation book Ch 5 page 57 par 9	Why then is not every geological formation and every stratum full of such intermediate links? Geology assuredly does not reveal any such finely-graduated organic chain; and this, perhaps, is the most obvious and serious

		objection which can be urged against the theory.
	Context from The Origin of Species, Part Two, p. 55	… The explanation lies, as I believe, in the extreme imperfection of the geological record. In the first place, it should always be borne in mind what sort of intermediate forms must, on the theory, have formerly existed. I have found it difficult, when looking at any two species, to avoid picturing to myself forms DIRECTLY intermediate between them. But this is a wholly false view; we should always look for forms intermediate between each species and a common but unknown progenitor;
	Comments *Severity: Bad*	Darwin immediately offerred an explanation for the objection.
30	Creation book Ch 5 page 57 par 10	He explained: "The abrupt manner in which whole groups of species suddenly appear in certain formations has been urged by several paleontologists . . . as a fatal objection to the belief in the transmutation of species." He added: "There is another and allied difficulty, which is much more serious. I allude to the manner in which species belonging to several of the main divisions of the animal kingdom suddenly appear in the lowest known fossiliferous rocks. . . . The case at present must remain inexplicable; and may be truly urged as a valid argument against the [evolutionary] views here entertained."
	Context from The Origin of Species, Part Two, pp. 83, 88, 91, 92	In all cases positive palaeontological evidence may be implicitly trusted; negative evidence is worthless, as experience has so often shown. . . . We do not make due allowance for the enormous intervals of time which have elapsed between our consecutive formations, longer perhaps in many 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 parent-form: and in the succeeding formation, such groups or species will appear as if suddenly created. . . . For my part, following out Lyell's metaphor, I look at the geological record as a history of the world imperfectly kept and written in a changing dialect. Of this history we possess the last volume alone, relating only to two or three countries. Of this volume, only here and there a short chapter has been preserved, and of each page, only here and

		there a few lines. Each word of the slowly-changing language, more or less different in the successive chapters, may represent the forms of life, which are entombed in our consecutive formations, and which falsely appear to have been abruptly introduced. On this view the difficulties above discussed are greatly diminished or even disappear.
	Comments	In the case of both of the objections he raised, Darwin gave long responses, some of which are reproduced above. As far as the second objection goes, he was referring to species such as the "Nautilus, Lingula, etc.", and his main problem was that theorists of his day believed that the earth's crust formed only 200 million years ago, which he believed was not enough time for the common ancestors of such species to develop into their descendents. We now know that the earth is many times older.
31	Creation book Ch 5 page 58 par 11	He said: "I look at the geological record as a history of the world imperfectly kept, . . . imperfect to an extreme degree." It was assumed by him and others that as time passed the missing fossil links surely would be found.
	Context from The Origin of Species, Part Two, pp. 94, 296	If we admit that the geological record is imperfect to an extreme degree, then the facts, which the record does give, strongly support the theory of descent with modification. . . . Of this volume [of the fossil record], only here and there a short chapter has been preserved, and of each page, only here and there a few lines.
	Comments	I could find no indication that Darwin assumed that the missing links would be found, in fact it appears that he assumed that the rest of the fossil record was not preserved but had been lost forever.
32	Creation book Ch 5 page 58 par 12	The record of past forms of life is now extensive and is constantly increasing in richness as paleontologists find, describe, and compare new fossils.
	Context from Processes of Organic Evolution, p.	Although many thousands of different kinds of fossils have been discovered, they are still only a tiny fraction of the organisms which have existed. Dr.

	136	Simpson estimates that the available fossils represent only a fraction of one per cent of the species which have existed during the evolution of life. Not only is the record very incomplete, but it is, in addition, a strongly biased sample. In most places where organisms die, their remains are quickly destroyed by other organisms, particularly the bacteria and fungi that cause decay. Since fossils are preserved chiefly under water, or in water soaked ground, nearly all of the deposits of terrestrial animals and plants are in or near ancient river and lake beds. . . . Another source of imperfection is that almost no organisms are preserved in their entirety. Soft parts are rarely preserved in fossils . . . Insects, since they are not only small but also very fragile for the most part, are preserved only in a few deposits, widely separated from each other in space and time. . . . An additional weakness of the fossil record is that many past epochs are represented by fossil beds which were deposited simultaneously in only a small number of different regions of the earth. For understanding the origin of modern species the facts of geographic distribution, such as allopatry and sympatry of related populations, are of the greatest importance. Such facts can rarely be obtained from studying the fossil record.
	Comments	The Creation book is using this sentence to try to give the impression that the situation now is different to in Darwin's day, yet a few paragraphs later we find sentiments identical to Darwin. To suggest otherwise based on this material is dishonest.
	Severity: Bad	

33	Creation book Ch 5 page 59 par 13, 14	The fossil record is full of trends that paleontologists have been unable to explain. . . . What is it that these evolutionary scientists have found to be so "surprising" and are "unable to explain"? (14) What has confounded such scientists is the fact that the massive fossil evidence now available reveals the very same thing that it did in Darwin's day: Basic kinds of living things appeared suddenly and did not change appreciably for long periods of time. No transitional links between one major kind of living thing and another have

		ever been found.
	Context from A View of Life, by Salvador E. Luria, Stephen Jay Gould, Sam Singer, 1981, p. 642, p 641	In phyletic evolution an entire ancestral population is transformed into a descendant species. . . . The fossil record is full of trends that paleontologists have been unable to explain with the standard argument of improved design by sustained natural selection during phyletic evolution.
	Comments *Severity: Bad*	The incomplete quote distorts the meaning of what was said in the reference.
34	Creation book Ch 5 page 65 par 29	And geneticist Stebbins writes: "No transitional forms are known between any of the major phyla of animals or plants." He speaks of "the large gaps which exist between many major categories of organisms."
	Context from Processes of Organic Evolution, p. 147	Page 144: A.S. Romer, remarks of these animals: "Primitive Paleozoic reptiles and some of the earliest amphibians were so similar in their skeletons that it is almost impossible to tell when we have crossed the boundary between the two classes." (vertebrate Paleontology, p. 121).; Page 145 regarding reptiles and mammals: . . . the animals which dominated the land in the later Permian and early Triassic Periods, before the dinosaurs appeared, were the mammal-like reptiles or therapsids, which in both their skull and teeth were almost halfway between typical reptiles and primitive mammals.
	Comments	Phyla are the most major groups of organisms. The reference material does describe transitional forms between major groups of animals (but not phyla). On the pages surrounding the quoted passage, there are several references to transitionary forms between major groups of animals.
35	Creation book Ch 5 page 65 par 29	In fact, The New Evolutionary Timetable acknowledges, "the fossil record does not convincingly document a single transition from one species to another. Furthermore, species lasted for astoundingly long periods of time."
	Context from The New Evolutionary Timetable,	The deposits of the Bighorn Basin provide a nearly continuous local depositional record for this interval, which lasted some five million years. It

	p. 95	used to be assumed that certain populations of the basin could be linked together in such a way as to illustrate continuous evolution. Careful collecting has now shown otherwise. Species that were once thought to have turned into others have been found to overlap in time with these alleged descendants. In fact, the fossil record does not convincingly document a single transition from one species to another. Furthermore, species lasted for astoundingly long periods of time. . . .Very few of these species lasted for less than half a million years, and their average duration was greater than a million years.
	Comments	This is discussing a single fossil deposit known as the "Bighorn Basin". It is dishonest to represent this text as if it was a general statement about the fossil record,
	Severity: Bad	
36	Creation book Ch 5 page 65 par 31	Darwinian evolution has not taught us how birds descend from reptiles, mammals from earlier quadrupeds, quadrupeds from fishes, nor vertebrates from the invertebrate stock. . . . to seek for stepping-stones across the gaps between is to seek in vain, for ever.
	Context from On Growth and Form, by D'Arcy Thompson, 1959, Vol. II, pp. 1093, 1094	Following on from quote: This is no argument against the theory of evolutionary descent. It merely states that formal resemblance, which we depend on as our trusty guide to the affinities of animals within certain bounds or grades of kinship and propinquity, ceases in certain other cases to serve us, because under certain circumstances it ceases to exist.
	Comments	It is dishonest to leave out the following sentence saying that hist statement was not an argument against evolution. Thompson was attempting to apply mathematical models to the natural world.
37	Creation book Ch 5 page 66 par 33	The Encyclopædia Britannica comments: "The evolution of the horse was never in a straight line." In other words, nowhere does the fossil evidence

		show a gradual development from the small animal to the large horse.
	Context from Encyclopædia Britannica, 1976, Macropædia, Vol. 7, p. 13	At the start in Early Tertiary times (about 65,000,000 years ago), the habitat of the ancestral horses was swampy and the vegetation luxurious with leafy plants. To this environment the horse's ancestors (Hyracotherium) were adapted by feet with four splayed toes that did not sink into the mud and short teeth for browsing on and eating the soft leaves of trees and shrubs. Later, in the Miocene, the vegetation in many areas changed to grass, which contains silicon and would wear down short teeth. The horse's ancestors (Merychippus) then became adapted to this food by the evolution of long high-crowned teeth, capable of uninterrupted growth. At that time the ground was dry and hard, and the number of toes in the feet became reduced, finally to one, with a hoof and a spring joint. These animals were thus able to exploit the grassland niche, as it became more prevalent. . . . The evolution of the horse was never in a straight line. First many-toed, low-crown toothed browsers changed into fewer-toed, high-crown toothed grazers; lastly, one-toed grazers were the surviving type. This evolution was correlated in each case with the changed physical conditions of the environment, both vegetable and physical, and as the various directions are different, the effect on the whole lineage is called "zig-zag" to stress the difference between this fact and the mistaken notion of "orthogenic" (straight line) evolution. In other wards, it was adaptive, and in bringing it about natural selection acted opportunistically.
	Comments	The text is saying that the evolution was not in a straight line in the sense that there were different pressures behind different adaptations and they occurred at different times. Next to the text there is a diagram showing the gradual development of the horse. Other parts of the article contradict many arguments in the Creation book.
	Severity: Very bad	
38	Creation book Ch 5 page 70 par 38	Astronomer Carl Sagan candidly acknowledged in his book Cosmos: "The fossil evidence could be consistent with the idea of a Great Designer;"

	Context from Cosmos, by Carl Sagan, 1980, p. 29	The fossil evidence could be consistent with the idea of a great designer; perhaps some species are destroyed when the Designer becomes dissatisfied with them, and new experiments are attempted on an improved design. But this notion is a little disconcerting . . . The fossil record implies trial and error, an inability to anticipate the future, features inconsistent with an efficient Great Designer (although not a Designer of a more remote and indirect temperament).
	Comments	This was not Carl Sagan's opinion, he was speculating about how people thought about our origins in centuries past.
	Severity: Very bad	
39	Creation book Ch 5 pages 68 and 69	How many-celled animals originated and whether this step occurred one or more times and in one or more ways remain difficult and ever-debated questions that are . . . 'in the last analysis, quite unanswerable.'-Science
	Context from Science, February 23, 1973, p. 789	How many-celled animals originated and whether this step occurred one or more times and in one or more ways remain difficult and ever-debated questions that are perhaps, as John Corliss has said, "in the last analysis, quite unanswerable." Nevertheless, these questions continue to evoke interest among zoologists, and new evidence pertinent to the several competing theories of metazoan origin continues to accumulate . . .
	Comments	By omitting the word "perhaps" the meaning of the passage is distorted. The context obviously indicates that the questions are not generally considered to be unanswerable. Interestingly, there is nothing here about fossils.
	Severity: Bad	
40	Creation book Ch 5 pages 68 and 69	The fossil record does not give any information on the origin of insects.-Encyclopædia Britannica
	Context from Encyclopædia Britannica, 1976,	The fossil record does not give any information on the origin of insects, but it indicates the succession of the major groups.

	Macropædia, Vol. 7, p. 565.	
	Comments	The section on insects in the encyclopaedia explains that fossils of any insect, let alone their origins are rare. This is because they are mainly terrestrial, lack skeletons and were originally wingless - wings are the main source of fossils. Examples are given which show the development of insects.
	Severity: Very bad	
41	Creation book Ch 5 pages 68 and 69	On Fish Becoming Amphibians: Just how or why they did this we will probably never know.-The Fishes
	Context from The Fishes, by F. D. Ommanney, 1964, p. 64	Just how or why they did this we will probably never know; only a few remains of this presumed transitional stage have been found in Canadian and Greenland fossil beds. Most likely, they began their adaptation to terrestrial life by moving out of ponds and streams that were slowly drying up, seeking more water, crawling over the mud with their forefins.
	Comments	The continuation of this sentence contradicts claims by the Creation book that no transitional forms have been found.
	Severity: Bad	
42	Creation book Ch 5 pages 68 and 69	There is no missing link [that connects] mammals and reptiles.-The Reptiles
	Context from The Reptiles, by Archie Carr, 1963, p. 41	There is no missing link between mammals and reptiles, nor any single fossil type which, as Archaeopteryx does for birds, stands out clearly as half reptile, half mammal. As it is, the case rests mostly on bones and teeth, and relying on such skeletal characters alone, we only see the ancestral forms slowly acquiring the skeleton and dentition that today we associate with mammals. We can only deduce the developing pattern of the less solid attributes not likely to be preserved in the rocks.
	Comments	The source text uses the word "between" instead of "that connects". The source text was saying that the links are all there but there is no strikingly half

		mammal, half reptile form, rather the fossils show reptiles slowly changing into mammals.
	Severity: Very bad	
43	Creation book Ch 5 pages 68 and 69	The transition from reptiles to birds is more poorly documented.-Processes of Organic Evolution
	Context from Processes of Organic Evolution, p. 146	The transition from reptiles to birds is more poorly documented than are the other transitions between classes of vertebrates. Nevertheless, many of the smaller reptiles in the group ancestral to dinosaurs and crocodiles had light skeletons from which those of birds could have arisen, and moreover walked exclusively on their hind legs, as do birds. Furthermore, the earliest fossil birds, from Jurassic deposits of Germany, had jaws containing teeth and forelimbs with well developed fingers. We classify them as birds because feathers are preserved with their skeletons; . . .
	Comments	The actual reference indicates that the transitionary forms between reptiles and birds are poorly represented only in a relative sense. The transition is still evident.
	Severity: Bad	
44	Creation book Ch 5 pages 68 and 69	No fossil of any such birdlike reptile has yet been found.-The World Book Encyclopedia
	Context from The World Book Encyclopedia, 1982, Vol. 2, p. 291.	At some point in the evolution of birds from reptiles, there must have been various kinds of birdlike reptiles. Such creatures would have been covered with featherlike scales … However, no fossil of any such birdlike reptile has yet been found.The earliest bird fossils belong to a genus (group) called Archaeopteryx. Archaeopteryx lived about 150 to 130 million years ago. It resembled a reptile in many respects. However, it was covered in feathers and so is classed as a bird . . . Without the feathers, the skeleton would probably have been mistaken for that of a small dinosaur.

	Comments	The text went on to describe a number of fossil creatures that did have characteristics between birds and reptiles to varying degrees but these examples are ignored.
45	Creation book Ch 6 page 71 par 2	Zoologist N. J. Berrill comments on his own evolutionary explanation of how the fish arrived, by saying: "In a sense this account is science fiction."
	Context from The Origin of Vertebrates, by N. J. Berrill, 1955, p. 10	Obviously there are various ways in which the data derived from the study of the lower chordates and other organisms can be organised so as to give a plausible picture of evolutionary relationships. The question is which arrangement is the most satisfactory; . . . The discussion which follows is less an attempt to justify a particular interpretation than it is to bring into a hypothetical evolutionary story as much of the more or less superabundant provertebrate data as possible, with a minimum of exclusion; . . . In a sense this account is science fiction, . . .
	Comments	Berrill is saying that there is plenty of data, but he is presenting a non-dogmatic narrative and in that sense, it is like science fiction.
	Severity: Bad	
46	Creation book Ch 6 page 73 par 6	David Attenborough disqualifies both the lungfish and the coelacanth "because the bones of their skulls are so different from those of the first fossil amphibians that the one cannot be derived from the other."
	Context from Life on Earth, by David Attenborough, 1979, p. 137	But neither fish can be regarded as the one whose descendents eventually colonised the land permanently. Both are disqualified because the bones of their skulls are so different from those of the first fossil amphibians that the one cannot be derived from the other. However, there is a third fish found in the deposits of that early and critical period. ...Its skull, however, has the crucial feature which neither the coelacanth nor the lungfish possess - a passage linking its nostrils with the roof of its mouth. All land vertebrates have this feature and it is this which confirms that this fish is indeed very

		close to the ancestral line.
	Comments	Immediately after the quoted passage, David Attenborough describes another fish that does qualify.
	Severity: Very bad	

47	Creation book Ch 6 page 77 par 16	. . . consider this rather astonishing effort to explain its development: "How did this structural marvel evolve? It takes no great stretch of imagination to envisage a feather as a modified scale, basically like that of a reptile-a longish scale loosely attached, whose outer edges frayed and spread out until it evolved into the highly complex structure that it is today." But do you think such an explanation is truly scientific? Or does it read more like science fiction?
	Context from The Birds, by Roger Tory Peterson, 1963, p. 34	In fact, birds still wear scales very much like those of reptiles on their feet and legs. And today the scales on the bare shanks of the bald eagle develop from germ buds quite like those which produce the feathers adorning the shanks of the golden eagle. Both are products of the skin, hornified growths as devoid of feeling as our hair or our nails.
	Comments	The context of the quoted passage provides reasons why the explanation for scale development could be plausible.

48	Creation book Ch 7 page 86 par 10	The Universe Within asks: "What caused evolution . . . to produce, as if overnight, modern humankind with its highly special brain?" Evolution is unable to answer.
	Context from The Universe Within, by Morton Hunt, 1982, p. 45	About twenty million years ago our pre-hominid ancestors, Dryopithecus and Ramapithecus, had brains no bigger than monkeys'. Virtually no change occurred for the next seventeen million years or so, but then, rather abruptly, the australopithecine hominids appeared, with larger brains of about 500 cc in volume. . . . Homo habilis, appeared-again, rather abruptly-about two million years ago, with 750 cc of brain. And rather swiftly, in evolutionary

		terms-only half a million years later-Homo erectus showed up, with 900 to 1300 cc of brain. Then evolution went berserk: a mere 200,000 to 300,000 years ago an early form of Homo sapiens appeared, with a 1400 cc brain, and by 40,000 years ago the modern human being, Homo sapiens sapiens, emerged, with a brain averaging 1500 cc. . . . What happened? What caused evolution to accelerate in this way, and to produce, as if overnight, modern humankind with its highly special brain? Here we enter an area of speculation-but not guesswork-for recent fossil discoveries give us a toehold on reality.
	Comments	Starting end of page 44: Hunt then goes on to propose explanations for the increase in size. It is dishonest to use this reference to imply that there is no fossil evidence for increasing brain size in human ancestors. It is even more dishonest to follow the quote with "Evolution is unable to answer", when the author gives an answer on the same page.
	Severity: Bad	
49	Creation book Ch 7 page 89 par 20	Science Digest also commented: "The vast majority of artists' conceptions are based more on imagination than on evidence. . . . Artists must create something between an ape and a human being; the older the specimen is said to be, the more apelike they make it."
	Context from Science Digest, "Anthro Art," April 1981, p. 41	The vast majority of artists' conceptions are based more on imagination than on evidence. But a handful of expert natural-history artists begin with the fossil bones of a hominid and work from there. Such a procedure calls for a detailed understanding of anatomy. Most bones have tiny ridges and grooves . . . Bones say nothing about the fleshy parts of the nose, lips or ears. Artists must create something between an ape and a human being; the older the specimen is said to be, the more apelike they make it.
	Comments	This quote is dishonest because it implies that the entire appearance of the reconstructed specimen is based on how old is it supposed to be, whereas the article says that this license is only taken with certain fleshy parts, the skin and hair.

	Severity: Very bad	*Also listed by: Mario Di Maggio*
50	Creation book Ch 7 page 89 par 20	Fossil hunter Donald Johanson acknowledged: "No one can be sure just what any extinct hominid looked like."
	Context from Lucy, p. 286	No one can be sure what any extinct hominid looked like with its skin and hair on. Sizes here are to scale, with afarensis about two feet shorter than the average human being.
	Comments	This is an appalling misquotation.
	Severity: Very bad	*Also listed by: JWfacts, Jan Haugland*
51	Creation book Ch 7 pages 89, 90 par 21	Indeed, New Scientist reported that there is not "enough evidence from fossil material to take our theorising out of the realms of fantasy."
	Context from New Scientist, book review of Not From the Apes: Man's Origins and Evolution by Björn Kurtén, August 3, 1972, p. 259	It is proving particularly difficult to understand the evolution of man: through what forms has he progressed - vegetarian or carnivore, quadruped or brachiator? When did he become a biped, when a toolmaker? How close is his relationship to the great apes? When did they diverge? We know too little of the timings or mechanisms of evolution, nor is there enough evidence from fossil material to take our theorising out of the realms of fantasy.
	Comments	The reference is being used to argue that we do not know what human ancestors looked like, yet the context of the quote indicates that the theorising had little to do with appearance but rather other aspects of human evolution. This is a mis-use of the quoted text.
52	Creation book Ch 7 page 90 par 21	So the depictions of "ape-men" are, as one evolutionist admitted, "pure fiction in most respects . . . sheer invention."
	Context from The Neck of the Giraffe, by Francis	. . . the hunt is on for the Common Ancestor . . . {a speculative description follows and then a discussion between Hitching and Peter Andrews of the

	Hitching, 1982, p. 224 (my quote starts on page 223)	American Museum of Natural History} . . . So the chances of finding fossils of this ancestor of ours are pretty remote? 'Vanishingly small, I would say.' What about the depictions of this creature - how accurate are they? 'Pure fiction in most respects.' And the models in Man's Place in Evolution? 'Much the same. Anatomically we can probably get fairly close, but all the rest is sheer invention. Skin colour, how much hair - we can't possibly know. In many ways I wish we didn't have to flesh these creatures out.'
	Comments	The reference material is specifically talking about the yet-to-be discovered Common Ancestor of humans and apes, not "ape-men" in general. Regarding the fictional aspect, it was referring to the skin and hair, not to the entire depiction.
	Severity: Bad	
53	Creation book Ch 7 page 90 par 21	Thus in Man, God and Magic Ivar Lissner commented: "Just as we are slowly learning that primitive men are not necessarily savages, so we must learn to realize that the early men of the Ice Age were neither brute beasts nor semi-apes nor cretins. Hence the ineffable stupidity of all attempts to reconstruct Neanderthal or even Peking man."
	Context from Man, God and Magic, by Ivar Lissner, 1961, p. 304	The text continues: Exaggeratedly hirsute plaster figures of bestial mien glower savagely at us . . . despite the fact that we have absolutely no idea what colour Paleolithic man's skin was or how his hair grew and virtually no idea of his physiognomy.
	Comments	The reference is speaking specifically about the time of the ice age and deficiencies in depictions of human ancestors relating to their skin, hair and facial expressions.
54	Creation book Ch 7 page 94 par 31	Anatomist Zuckerman wrote: "When compared with human and simian [ape] skulls, the Australopithecine skull is in appearance overwhelmingly simian-not human. The contrary proposition could be equated to an assertion that black

		is white." He also said: "Our findings leave little doubt that . . . Australopithecus resembles not Homo sapiens but the living monkeys and apes."
	Context from Beyond the Ivory Tower, by Solly Zuckerman, 1970, p. 90	One of the features we have studied is a further measure, more direct than the one we used in our first study, of the extent to which the iliac blade faces either backwards ('dorsally') or sideways ('laterally'). On this occasion we focussed our attention on the areas of attachment of the gluteus medius and gluteus minimus muscles . . . Our findings leave little doubt that, in this respect, Australopithecus resembles not Homo sapiens but the living monkeys and apes.. . . In some of this group of characters Australopithecus agrees with Homo sapiens and differs from monkeys and apes. In others it falls in a position intermediate between man and the subhuman primates.
	Comments	The second part of the quote was refering to the iliac blade and not to skulls. There were characteristics of Australopithecus that resembled Homo sapiens rather than monkeys and apes.
55	Creation book Ch 7 page 94 par 32	Obviously, it too was simply an "ape." In fact, New Scientist said that "Lucy" had a skull "very like a chimpanzee's."
	Context from New Scientist, "Trees Have Made Man Upright," by Jeremy Cherfas, January 20, 1983, p. 172	Lucy, alias Australopithecus afarensis, had a skull very much like a chimpanzee's, and a brain to match, and yet her bones, especially her hip and knee, said that she walked upright. Together, all the other fossils that Johanson and his team dug from the sandstone showed him all the hallmarks of habitual, efficient bipedality;
	Comments	The surrounding text contradicts the claim that Lucy was simply an ape.
56	Creation book Ch 7 page 95 par 33	Another fossil type is called Homo erectus-upright man. Its brain size and shape do fall into the lower range of modern man's. Also, the Encyclopædia Britannica observed that "the limb bones thus far discovered have been indistinguishable from those of H[omo] sapiens."

	Context from Encyclopædia Britannica, 1976, Macropædia, Vol. 8, p. 1032	Such endocranial (interior) capacity measurements show that H. erectus was smaller brained than is modern man. The average capacity for 14 crania of H. erectus from Java, China and Africa is 941 cubic centimeters (cc; 57 cubic inches). . . . The average capacity in modern H. sapiens is 1,350 cc . . . Apart from their characteristically small capacity, the skulls of H. erectus show a series of distinctive features. The braincase is low, with sides that taper upwards, and the bones of the cranial vault are thick. Over the eye sockets is a strongly jutting ledge of bone called a supra-orbital torus, while a markedly thickened shelf of bone (occipital torus) adorns the hind end of the skull. . . . The nose of H. erectus is wide, the jaws and palate being broad and somewhat prominent. The teeth are on the whole larger than those of H. sapiens. . . .The front teeth (incisors and canines) are especially large for a hominid . .
	Comments	The Encyclopaedia Britannica devotes six pages to Homo erectus and points out numerous differences between Homo erectus and modern humans (about a page is devoted to these).
	Severity: Bad	*Also listed by: Mario Di Maggio*
57	Creation book Ch 7 page 96 par 38	A scientific journal reported on studies showing that "dates determined by radioactive decay may be off-not only by a few years, but by orders of magnitude." It said: "Man, instead of having walked the earth for 3.6 million years, may have been around for only a few thousand."
	Context from Popular Science, "How Old Is It?" by Robert Gannon, November 1979, p. 81	So, today, everything - human artifacts, animal remains, ancient rocks - can be dated fairly accurately. The dates may be a little off, but that's mainly a matter of impurities in the sample or need to refine techniques, say the scientists involved. Yet major mysteries and curious anomalies remain - the odd speculations advanced by Columbia Union College's Robert Gentry, for instance. Physicist Gentry believes that all of the dates determined by radioactive decay may be off - not only by a few years, but by orders of magnitude.. . . And man, instead of having walked the earth for 3.6 million years, may have been around for only a few thousand.

	Comments	This is a dishonest use of the article - there is no mention of "studies showing that" dates may be inaccurate. The article regards dating methods as fairly accurate but the Creation book only mentions the "odd speculations" of Gentry. Robert Gentry is a creationist who believes that the earth is only 6,000 years old.
	Severity: Bad	*Also listed by: Jan Haugland, Mario Di Maggio*
58	Creation book Ch 8 page 100 par 5	As the Encyclopedia Americana commented, the reproducing "of the DNA chains composing a gene is remarkably accurate. Misprints or miscopying are infrequent accidents."
	Context from Encyclopedia Americana, 1977, Vol. 10, p. 742	If one considers the frequency of a given kind of mutational change in a certain gene, mutations seem to be rare events. This is really another way of saying that the replications of the DNA chains composing a gene is remarkably accurate. Misprints or miscopying are infrequent accidents. Though particular mutations are rare, many mutations arise in every generation.
	Comments	When read in context, the source is saying that mutations they are relatively infrequent, but in absolute terms, they are quite common.
	Severity: Bad	
59	Creation book Ch 8 page 101 par 7	Excluding any "neutral" mutations, then, harmful ones outnumber those that are supposedly beneficial by thousands to one. "Such results are to be expected of accidental changes occurring in any complicated organization," states the Encyclopædia Britannica.
	Context from Encyclopædia Britannica, 1959, Vol. 22, p. 989	It can be only the rare mutations that are helpful which furnish material for evolution. These latter, however, when they show, will tend to multiply.
	Comments	The context explains why the rare beneficial mutations are important and the

		harmful ones don't matter.
60	Creation book Ch 8 page 101 par 8	The fact that most mutations are damaging to the organism seems hard to reconcile with the view that mutation is the source of raw materials for evolution. Indeed, mutants illustrated in biology textbooks are a collection of freaks and monstrosities and mutation seems to be a destructive rather than a constructive process.
	Context from Encyclopedia Americana, 1977, Vol. 10, p. 742	The solution of the paradox is rather simple. No genetic variant is either useful or harmful, except in some environments. In the environments in which a given species lives and has lived for many generations, a mutation has indeed little likelihood of bringing a spectacular improvement. Placed in a new or unusual environment, a population may have some mutants that are well adapted to the new environment.
	Comments	The context explains how mutations can be beneficial.
61	Creation book Ch 8 page 101 par 8	When mutated insects were placed in competition with normal ones, the result was always the same. As G. Ledyard Stebbins observed: "After a greater or lesser number of generations the mutants are eliminated."
	Context from Processes of Organic Evolution, by G. Ledyard Stebbins, 1971, pp. 24, 25	Consequently, the theoretical expectation would be that all or nearly all of the mutations occurring in a successful population would lower its adaptation to its accustomed environment, and so would be rejected by natural selection unless the environment were changing relative to the needs of the organism. This is, in fact, what has been found in actual experiments.. . . Scores of these mutant flies have been placed in competition with their wild-type alleles in laboratory bottles under standard conditions with nearly always the same result. After a greater or lesser number of generations the mutants are eliminated by the corresponding wild-type alleles. There are, however, a few experiments in which flies bearing mutant and wild-type alleles have been made to compete with each other under conditions different from those under which the fly is usually raised. Some of these have produced different

		results.
	Comments	The context gives examples of experiments where mutant flies succeeded over wild flies because they were better able to handle a different temperature or could withstand poisonous substances. The bottom line is that the Creation book lied when it said that ". . . the result was always the same".
	Severity: Bad	
62	Creation book Ch 8 page 102 par 10	Geneticist Dobzhansky once said: "An accident, a random change, in any delicate mechanism can hardly be expected to improve it. Poking a stick into the machinery of one's watch or one's radio set will seldom make it work better."
	Context from Heredity and the Nature of Man, by Theodosius Dobzhansky, 1964, p. 126	. . . the harmfulness of most mutants is just what could be reasonably expected. Indeed, the genetic machinery of a living species, its genotype , is exquisitely adjusted to the environment in which this species lives. An accident, a random change, in any delicate mechanism can hardly be expected to improve it. Poking a stick into the machinery of one's watch or one's radio set will seldom make it work better.. . .If the environment in which a population lives remains reasonably constant for a long time, then most of the useful mutants will be established as the adaptive norm, and most or all mutants that arise will be harmful. If the environment changes, some of the mutants may become advantageous, will be perpetuated by natural selection, and may eventually replace the ancestral form.
	Comments	A completely different impression is given when the material is read in context. The analogy "poking a stock into . . . one's radio set will seldom make it work better" is used by the author to pose a question which he then answers.

63	Creation book Ch 11 page 142 par 4	Stephen Gould reports that many contemporary evolutionists now say that substantial change "may not be subject to natural selection and may spread through populations at random."
	Context from Discover, "Evolution as Fact and Theory," by Stephen Jay Gould, May 1981, p. 35	Thus Darwin acknowledged the provisional nature of natural selection while affirming the fact of evolution. The fruitful theoretical debate that Darwin initiated has never ceased. But renewed debate characterizes our decade, and, while no biologist questions the importance of natural selection, many now doubt its ubiquity. In particular, many evolutionists argue that substantial amounts of genetic change may not be subject to natural selection and may spread through populations at random.
	Comments	The omission of the word genetic makes it sound as if large-scale changes to organisms may not be subject to natural selection.
64	Creation book Ch 11 page 143 par 5	Zoologist Richard Lewontin said that organisms "appear to have been carefully and artfully designed." He views them as "the chief evidence of a Supreme Designer." It will be useful to consider some of this evidence.
	Context from Scientific American, "Adaptation," by Richard Lewontin, September 1978, p. 213	The manifest fit between organisms and their environment is a major outcome of evolution…. By the time Darwin published On the Origin of Species in 1859 it was widely (if not universally) held that species had evolved from one another.... Life forms are more than simply multiple and diverse, however. Organisms fit remarkably well into the external world in which they live. They have morphologies, physiologies and behaviors that appear to have been carefully and artfully designed to enable each organism to appropriate the world around it for its own life. It was the marvelous fit of organisms to the environment, much more than the great diversity of forms, that was the chief evidence of a Supreme Designer. Darwin realized that if a naturalistic theory of evolution was to be successful, it would have to explain the apparent perfection of organisms and not simply their variation.
	Comments	This is a blatant misquotation. It was the evidence of a supreme designer to the people living in 1859, not for himself.
	Severity: Very bad	*Also listed by: JWfacts, Jan Haugland, Mario Di Maggio*

65	Creation book Ch 13 page 160 par 1	MANY instincts are so wonderful that their development will probably appear to the reader a difficulty sufficient to overthrow my whole theory, Darwin wrote. He evidently felt that instinct was an unanswerable difficulty, for his next sentence was: "I may here premise that I have nothing to do with the origin of the mental powers, any more than I have with that of life itself."
	Context from The Origin of Species, by Charles Darwin, Mentor edition, 1958, p. 228	Under changed conditions of life, it is at least possible that slight modifications of instinct might be profitable to a species; and if it can be shown that instincts do vary ever so little, then I can see no difficulty in natural selection preserving and continually accumulating variations of instinct to any extent that was profitable. It is thus, as I believe, that all the most complex and wonderful instincts have originated.
	Comments	The context shows that Darwin did not regard instinct as an unanswerable difficulty, in fact he suggested an answer.
	Severity: Bad	
66	Creation book Ch 13 page 161 par 4	Scientists know that any such experimental wanderings and learned behaviors are not incorporated into the genetic code and hence are not inherited by the offspring. Migration is admittedly instinctive and "independent of past experience."
	Context from A View of Life, by Salvador E. Luria, Stephen Jay Gould and Sam Singer, 1981, p. 556	Most instinctive behavioural responses probably depend on specific, genetically determined neuronal circuits within the brain, and they are usually independent of past experience. But there are many exceptions to this generalisation.
	Comments	The context explains how instictive behavious are not always independent of past experience.
	Severity: Very bad	

67	Creation book Ch 13 page 161 par 5	Rich food sources are available at both polar regions, so one scientist raises the question: "How did they ever discover that such sources existed so far apart?" Evolution has no answer.
	Context from Life on Earth, by David Attenborough, 1979, p. 184	But how did they ever discover that such sources existed so far apart? The answer seems to be that their journeys were not always so long. It was the warming of the world at the end of the Ice Age eleven thousand years ago that began to stretch them. Before that time birds in Africa, for example, might fly briefly a little to the north to the edge of the ice-cap in southern Europe where, for a few months in summer there were insects in quantity and no permanent local population to feed on them . . .
	Comments	Quite the opposite of having no answer, immediately after the quoted passage, a possible answer is given.
	Severity: Very bad	
68	Creation book Ch 14 page 177 par 20	As one evolutionist noted: "Anything that has evolved by natural selection should be selfish." And many humans are selfish, of course. But as he later acknowledged: "It is possible that yet another unique quality of man is a capacity for genuine, disinterested, true altruism."
	Context from The Selfish Gene, by Richard Dawkins, 1976, pp. 4, 215	If you look at the way natural selection works, it seems to follow that anything that evolves by natural selection should be selfish.
	Comments	The omitted part of the sentence is important because it prepares us for the explanation of why something that seems to be the case might not be.
69	Creation book Ch 15 pages 181, 182 par 6	Indeed, these same evolutionists admit that "debate rages about theories of evolution." But do debates still rage about the earth revolving around the sun, about hydrogen and oxygen making water, and about the existence of gravity? No. How reasonable is it, then, to say that evolution is as much a fact as these things are?

Context from A View of Life, by Salvador E. Luria, Stephen Jay Gould and Sam Singer, 1981, p. 575	It is appropriate and exhilarating that debate rages about theories of evolution. This debate does not imply, however, that evolution itself is a myth and that scientists are reduced to arguing about shadowy guesses called theories. Evolution happened. Theories of evolution try to explain how it happened. As long as people continue to exercise their inquisitive and innovative minds, we shall not attain immutable answers about the why and how of evolution. This is a welcome prospect, not an unpleasant one.
Comments	The context explains what "theory" means. There is indeed continuing debate about gravitational theory.

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