

Real World Graduation: Question 66: Charles Darwin

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Question 66

Charles Darwin (1809 - 1882) was an English "naturalist", that is, a scientist who studies nature and the workings of nature. He is highly regarded as an honest, patient worker who sifted through the facts available to him, testing various hypotheses per the scientific method, until he obtained some measure of consistency that allowed him to propose theories. His most famous theories have been combined under a general concept of "the theory of evolution". He presented his work on "evolution" in two books, *The Origin of the Species By Means of Natural Selection* (1859) and *The Descent of Man and Selection In Relation to Sex* (1871). Consider the following passages from Charles Darwin's original work; the portions in square brackets are explanatory notes that I have added.

"As species have generally diverged in character during their long course of descent and modification, we can understand why it is that the more ancient forms, or early progenitors of each group, so often occupy a position in some degree intermediate between existing groups. Recent forms are generally looked upon as being, on the whole, higher in the scale of organization than ancient forms; and they must be higher in so far as the later and more improved forms have conquered the older and less improved forms in the struggle for life; they have also generally had their organs more specialized for different functions. This fact is perfectly compatible with numerous beings still retaining simple and but little improved structures, fitted for simple conditions of life; it is likewise compatible with some forms having retrograded in organization, by having at each stage of descent better fitted for new and degraded habits of life." [1]

"The similar framework of bones in the hand of a man, wing of a bat, fin of a porpoise, and leg of the horse, -- the same number of vertebrae forming the neck of the giraffe and of the elephant, -- and innumerable other such facts, at once explain themselves on the theory of descent with slow and slight successive modifications. ... On the principle of successive variations not always supervening at an early age, and being inherited at a corresponding not early period of life, we clearly see why the embryos of mammals, birds, reptiles, and fishes should be so closely similar, and so unlike the adult forms." [2]

"Throughout whole classes various structures are formed on the same pattern, and at a very early age the embryos closely resemble each other. Therefore I cannot doubt that the theory of descent with modifications embraces all the members of the same great class or kingdom. I believe that animals are descended from at most only four or five progenitors [ancestors], and plants from an equal or lesser number." [3]

[Note: Apparently "class" and "kingdom" in this context are synonymous, and refer to mammals, reptiles, birds, fish, and insects. I have inferred this from two sources. The first is a glossary in *The Origin of the Species*, in which "mammalia" are called the "highest class of animals". The second is a section in Chapter 21 of *The Descent of Man* (paragraph 19) in which Darwin states: "In the several great classes of the animal kingdom,--in mammals, birds, reptiles, fishes, insects, and even crustaceans..."]

"The main conclusion here arrived at, and now held by many naturalists who are well competent to form a sound judgment is that man is descended from some less highly organized form. The grounds upon which this conclusion rests will never be shaken, for the close similarity between man and the lower animals in embryonic development, as well as in innumerable points of structure and

constitution, both of high and of the most trifling importance,--the rudiments which he retains, and the abnormal reversion to which he is occasionally liable, -- are facts which cannot be disputed."
[4]

From the preceding statements, which is most likely within the kingdom of mammals, considered over the entire course of earth's history?

- a) That birds are descended from dinosaurs
- b) That humans are descended from monkeys
- c) That monkeys are descended from tigers
- d) That elephants are descended from rabbits
- e) That cats are descended from dogs

- [1] Charles Darwin, *The Origin of the Species By Means of Natural Selection*, Chapter 15 "Recapitulation and Conclusion", paragraph 30.
- [2] Charles Darwin, *The Origin of the Species By Means of Natural Selection*, Chapter 15 "Recapitulation and Conclusion", paragraph 35.
- [3] Charles Darwin, *The Origin of the Species By Means of Natural Selection*, Chapter 15 "Recapitulation and Conclusion", paragraph 46.
- [4] Charles Darwin, *The Descent of Man and Selection In Relation to Sex*, Chapter 21 "General Summary and Conclusion", paragraph 2.

Answer to Question 66

This is a trick question. None of the answers are correct. Answer a) is incorrect because birds and dinosaurs are not mammals. Darwin's theory is that the kingdoms remain separate; since birds are of their own kingdom, and experts have claimed that dinosaurs are of the reptile kingdom, neither can be descended from the other. The reason why answers b) through e) are wrong is that none of them can be more likely than the others. In Darwin's theory, each is equally likely.

In the first three quoted passages, Darwin allows for trends toward both higher-organized forms and lesser-organized forms ("retrograded"). Therefore, in Darwin's original theory, any mammal is equally likely to have "descended" from any other mammal; any reptile is equally likely to have descended from any other reptile, etc. In other words, Darwin's basic claim is that the evolution of species within a kingdom is entirely random over the long run, but there is no transmigration of kingdoms.

In passage four, Darwin concluded that man "descended" from a "lesser organized form". But if so, wouldn't it be fair to say that man "ascended" from a "lesser-organized form"? However, judging from the exposition of the general theory, there is no particular reason why this should be the case: it is equally likely from the general theory that man "descended" from a "more highly organized form". Each of the answers b) through e) should have an "or vice-versa" appended to it.

Likewise, Darwin claims in passage four that man is descended from a less-organized form which cannot be refuted. His justification for this proof, as he states, is that there is a close similarity between man and the lower animals, and secondly and because of the numerous similarities in structure. But his reasons do not provide the proof. The features of similarity may be due to the fact that both man and animals are optimized for conditions on earth. Such could be the results of creation as well as evolution. He also does not attempt to answer why evolution does not continue today. Why are honeybees unable to see the color red; certainly they would be attracted to more flowers if they could. But they have not evolved in that direction, and Darwin's theory offers no evidence as to why not. Maybe there is a valid reason why bees should not see red, which would imply that the conditions found in nature are the result of an intelligent design beyond random chance.

When considering whether to believe in any theory or not, it is useful to go back and read what the original developer said about his theory. Darwin's observations are also explainable by the theory of creation. Do not be content with reading what others or later workers claim was intended. If you read Darwin's original work, you will find it is different than what modern writers claim Darwin intended.