# Why is Darwin Wrong?

As stated by Philip Skell in *The Scientist*, "Darwin's theory of evolution offers a sweeping explanation of the history of life, from the earliest microscopic organisms billions of years ago to all the plants and animals around us today."  With natural selection operating on random incremental changes, Darwin proposed a purely natural mechanism for constructing the complex organs and structures of all life, now and in the past.

So, what's wrong with Darwin's idea?  Why is it false?  The fundamental problem with Darwinian evolution is due to the nature of complex functional systems.  Complex functional systems are difficult to configure and build successfully.  They do not arise and function randomly.  If you start with a collection of basic components, there are potentially many ways to configure and assemble these components into a system.  The more components there are, and the more complex the system is, the more ways there are to configure them.  If the components are randomly configured, almost all of the configurations will fail to function as a successful system.  The more complex the system, the more ways there are to fail compared with the number of ways to succeed and function.  For highly complex systems, the number of ways to fail dominate to the point that no random process has any practical chance of finding a functional configuration.

One way to understand this is to consider the writing of words and passages in English.  If you start with simple words, about 12% of single letters are valid words (3/26), about 4% of 2-letter combinations are valid words (124/676), and about 7% of 3-letter combinations are valid words (1292/17,576).  So for simple words, it is possible for a random process to chance upon a functional configuration of letters.  But as the number of letters in the words increase (i.e. as the functional complexity increases), the chances of randomly finding valid words plummet dramatically.  For combinations of 4 letters, only about 1% are valid words (5454/456,976).  For combinations of 8 letters, the fraction of valid words is infinitesimal ($40,161/26^8=0.00001\%$).  The same rarity of functional combinations holds if spaces, punctuation marks and special characters are added to produce configurations of multiple words.

Note that as the number of letters/characters increases, the number of valid words and phrases (i.e. functional combinations) also does increase.  The problem for a random search, however, is that the number of non-functional combinations increases dramatically faster.  Also, the "distance" between functional combinations also increases, where "distance" is measured in terms of the number of incremental 1-letter changes between functional combinations.  This means that a random incremental 1-letter search from one complex functional combination must pass through a practically

infinite space of non-functional combinations in its search for a different functional combination.

This is why a random Darwinian search through alphabetic character symbol space cannot successfully navigate between examples of large and complex documents, e.g. books or manuals.  For example, it is impossible to find a successful Darwinian incremental path that will convert a Windows Operating System Manual into an Apple Operating System Manual.  If you start with a Windows manual, you can make random incremental changes to it that won't initially impact it very much.  But almost all of the random changes will introduce typos that eventually will degrade its readability and usefulness.  Very rarely, a random change may slightly improve the text for a brief moment, but that improvement will be swept away by a tidal wave of errors.

The same is true for the text in computer programs.  There is almost no chance that any random incremental change in computer code will improve a working program, and any rare improvement will be swept away by a tidal wave of program bugs.

The situation is even worse if we consider an electronic display of words whose characters are formed by individual pixels.  For example, a typical computer monitor display may use 1000 to 2000 pixels per character.  If we start with a screen display of a text message, and randomly start turning individual display pixels on and off, we will very quickly start to degrade the letters in the message until it is undecipherable.  There is no chance that the incremental changes can even maintain its current legibility, let alone change and improve the message.

The situation is much worse for the complex information and configurations of living cells and systems.  Even in the simplest living cells, there are thousands to billions of bits of functional information in the various biological codes (i.e. genetic code, sugar code, histone code, etc.).  And there are an estimated $10^{95}$ degrees of freedom in the configuration of each living cells interactome.  (For reference, note that there are only about $10^{86}$ elementary particles in the entire Universe.)  Given this complexity, there is clearly no chance for any random process to find a functional configuration for the establishment of any new life form.  Nor is there any chance for a random search process to start with any existing life form and find a feasible incremental pathway to a different and distinct life form.  In addition to this theoretical consideration, the extreme rarity of functional configurations in biology has been repeatedly confirmed experimentally.

The inability of random processes to find and build complex functional systems is obvious to writers in any language and to any computer programmer.  Why isn't it obvious for living systems?  Why is it so easy to believe the "just-so" stories of Darwinists that random Darwinian processes can modify and build complex new life forms?

The reason is because of our direct experience and observations.  We know from experience as language writers and computer programmers that random changes can only degrade complex essays, books and computer programs.  But our experience is different with biological systems.  With biological systems, we routinely see new forms of life evolving, whether it's new breeds of dogs, new types of farm crops, drug-resistant bacteria, etc.  From these examples, it's easy to extrapolate in our minds to imagine the formation of other new and more complex life forms.

But what we don't realize firsthand is that the biological changes we see around us are all examples of designed changes.  For example, all dogs are actually broken wolves.  The wolf gene has been designed robustly as a template from which all forms of domesticated dogs can be derived.  Whatever or Whoever designed the wolf did it in such a way as to benefit mankind with its many useful derivatives.  The many and various dog breeds are created in a devolutionary process of breaking and blunting certain wolf genes to deactivate them.  The resulting progeny retain certain canine characteristics that many humans find useful and endearing, but which also lessen their ability to survive in the wild.

The same is true for drug-resistant bacteria.  In the harsh (to a bacterium) hospital environments of antibiotics and disinfectants, some bacteria manage to survive by breaking and deactivating genes that have been targeted by the hospital control measures.  These broken bacteria can then out-survive their non-broken brethren while they are under the stress of the hospital conditions.  But the broken bacteria cannot compete with normal bacteria when they are returned to their normal environment.

The same is true for farm crops and farm animal breeds.  All farm crops are broken wild plants.  All farm animal breeds are broken wild animals.  That's why farm crops only survive when they are cultivated by farmers, and why wild plants and animals eventually return and dominate when a farm is abandoned.  Farmers and ranchers have recognized this for millennia.  That's why taming a wild horse for riding is called "breaking" the horse.

Now it's true that some forms of Darwinian evolution can be cyclic for a while.  For example, Darwin finch beaks can cycle between large size and small size as climatic conditions cause food sources to change and then return.  Peppered moth populations can vary in their proportions of dark and light coloring as environmental conditions change.  But these cyclic changes inevitably devolve as well, as genetic mistakes accumulate when the switches are made.

Biochemist Michael Behe was the first to recognize and elucidate the reasons for the inevitable devolutionary nature of the Darwinian process. Behe formulated the First Rule

of Adaptive Evolution:  *Break or blunt any functional gene whose loss would yield a net fitness gain.*

Behe's insight was to realize that in any complex biological system, there will be massively more random changes that break or blunt genes than any that might improve them.  Some of these changes may be beneficial to the organism, especially in non-typical and stressful situations.  Any beneficial change from broken genes will be selected and imprinted long before any series of highly improbable changes could possibly combine to build a new or improved genetic instruction.  Thus, any possible move toward a new and improved gene is inevitably swamped by a tidal wave of random devolutionary changes.

In his book *Darwin Devolves,* Behe cites another example, the polar bear.  Genetic research has revealed that the polar bear was derived from brown bears by breaking certain genes that made the bear lose its brown coloration, and that changed its processing of fat to allow it to survive and thrive in polar environments.

Behe also cites the experimental work done by microbiologist Richard Lenski at Michigan State University.  Lenski and his team at MSU have observed and analyzed over 65,000 generations of *E. coli* bacteria, "which is equivalent to over a million years in the history of a large animal species like humans".  In all of these generations, the *E. coli* bacteria have never deviated from their status as bacteria.  The only observed changes are when some bacteria lineages have broken their own genes in a way that allowed them to out-compete their brethren in certain petri dishes with highly artificial laboratory-specific environments.  In no cases have any bacteria lineages made even minor steps toward the possible construction of new genes or new abilities.  They certainly show no signs of "evolving" into potential new life forms.

So if Darwin is wrong about evolution, how did new forms of life actually originate and "evolve" on the Earth?  The correct answer is that they must have been implanted here by a higher intelligent Being.  Philosopher of Science, Stephen Meyer, in his book *Return of the God Hypothesis,* explains how modern scientific evidence now reveals that our Universe was created by a transcendent Being from outside of our physical space and time.  This Universe was exquisitely designed and fine-tuned with general parameters, elementary particles and initial conditions to allow for the existence of life.  Further evidence reveals how the degrees of freedom inherent in our entire Universe were used to configure and build the Earth such that it could support simple and complex life forms for an extended period of time.

But even the tremendous amount of degrees of freedom in our entire Universe are not enough to specify and configure the complex functions in a single living cell.  Meyer goes on to explain how the information for life must have been implanted in the Earth by an imminent Being who deigns to intervene in a personal way in the history of the Earth.

Thus the evidence points to a theistic God who is both transcendent and imminent in the history and affairs of the Universe.  This God designed and built the first simple cells that he used to populate our biosphere, and He designed and built the complex changes that He implanted in the Earth to create complex life forms, including us humans.  These changes are evident in the fossil record history of events like the Devonian Explosion, the Cambrian Explosion, and others.  In each of these "explosion" events, God implanted the information and body plans for robust biological family templates.  Each of these templates was designed to allow for genetic cycling and devolution into multiple genera and species.  Thus the cat family radiated into many species of wild and domestic cats.  The equine family descended into many forms of horses, donkeys, zebras, etc.  In all cases, the ability of the initial biological template to "evolve" into specific functional life forms was specifically designed into the template.  In any specific individual case, the individual's appearance and characteristics may have been randomly selected from the available options.  But in no case did any random process create or build a new functional life form.

Thus, for all complex functional systems, including written language, computer programs, modern building construction, modern machinery, and yes even for biological life, our uniform and repeated observations are that these systems arise only from an intelligent mind.  Random Darwinian processes can only devolve these systems into simpler sub-systems with a reduced amount of functional information.  But the random Darwinian process can never build new complex functional systems, nor can it change an existing complex functional system into a new and novel system.  That's why Darwin and his theory of evolution are wrong.

There is a well-known saying from Darwinists that "nothing in biology makes sense except in the light of evolution."  To this can be added that "nothing in evolution makes sense except in the light of Intelligent Design."