



Charles Darwin's brilliant theory was revealed in the 19th century but continues to stir controversy here in the 21st. *Painting of Darwin by George Richmond, Photo of early hominid replica by Guy P. Harrison*

Denying evolution for all the wrong reasons

Why do so many people continue to have difficulties accepting evolution? It has been known that life evolves for a long time now. Nonetheless, millions of people, generation after generation, continue to deny or never learn this fact. Debates haven't worked very well, indicating that arguing back and forth with committed evolution deniers may not be the solution. I'm certainly not willing to toss precious hours of my life into that black hole. What I feel does need to be said, however, is that the root problem here may be nothing more than a lack of awareness or education. It seems clear that most people who oppose evolution in societies such as the Cayman Islands, Turkey, Afghanistan, Saudi Arabia, Pakistan and the United States do not know what it is. Too many people are both uninformed and misinformed.

Religions, of course, are the source of this problem. Many believers incorrectly think that evolution and religion are incompatible. But this is not true. Many hundreds of millions of Christians, Muslims, Hindus, Buddhists and Jews accept evolution as real without ever feeling the need to abandon their religions. Pope John Paul II, for example, delivered an official statement to Catholics in 1996 declaring that evolution was so thoroughly confirmed by science that it could not be denied. He saw no conflict between being a Christian and acknowledging the reality of evolution. Francis Collins is another example of the compatibility between modern biology and religious belief. This scientist was director of the Human Genome Project that cracked

One
Guy's
View



Opinion by
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-This commentary was published in The Observer on Sunday (Cayman Islands), Sunday 5 October 2008

the code of life for our species. He also happens to be a devout Christian. Collins sees no contradiction in accepting modern biology and believing in Jesus.

Science helps us make sense of our surroundings but we have to be mature enough to accept reality as we find it. We can't pretend to see perfect circular planetary orbits when they are elliptical just because circles may seem more graceful and perfect to us. We can't pretend that evidence of nearly four billion years of evolutionary history is not all around us simply because someone told us evolution is bad. We have to be true to the scientific method, to our intelligence, and to ourselves.



The astonishing variety of life on Earth is explained very well by the Theory of Evolution. *Photo: Guy P. Harrison*

So what is evolution, anyway?

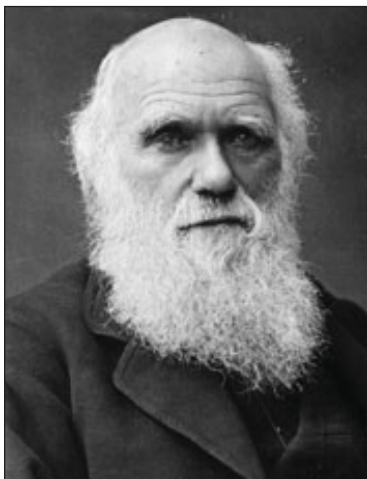
What is this idea that ignites debate and stirs horror in the minds of so many? Evolution is inheritable change in life caused by genetic mutations and natural selection. That's it. There is nothing inherently anti-religious or socially destructive in that definition. Yes, it clearly contradicts claims that life never changes or that the Earth is very young. Apart from those extreme claims, however, there is no necessary conflict between evolution and belief in a god.

Many people are uptight about evolution because they think it addresses the creation of life. It does not. Evolution describes how life changes over time. It says nothing about the beginning of life. That is a separate issue.

Some people think there is no convincing evidence for evolution. Wrong. There are millions of fossils that tell a great deal about the last three billion years or so of life on this planet. There also is genetic evidence. And then there are microbes that evolve right before our eyes.

It is common to hear people say that evolution is "just a theory". This is nothing more than a misunderstanding of what a theory is. To the public a theory may be some wild hunch with nothing backing it up. In science, however, a theory is an explanation of something based on observations and evidence. Scientists take theories very seriously. They are not mere guesses or hunches.

Silliest of all, some are misled into thinking that evolution is an evil creed that degrades humanity and seduces people into bad behavior. This is nonsense. Evolution is neither good nor bad. It simply is. Life will continue to evolve on this planet, whether we acknowledge it or not, whether we paint it negatively or positively. If there was any truth to this claim of moral corruption through knowing evolution, then why aren't the world's prisons filled with paleoanthropologists, microbiologists and paleontologists? Why haven't we seen an endless series of scandals erupting in the science departments of the world's elite universities? If evolution is somehow evil then why are its strongest proponents so consistently decent and well behaved? Why are nations that teach evolution in their schools—such as Japan, France and Canada—so progressive and relatively crime free?



Charles Darwin

Be careful. There are people out there who have dedicated themselves to misleading you about evolution. To win people over, professional evolution deniers publish books, produce documentaries and make films. They are everywhere but where the battle should be. Real science is not a PR campaign. Why aren't these people in laboratories, out in the field finding fossils, and publishing articles in leading science journals? Instant riches, glory and a Nobel Prize await the person who can show that life does not evolve. In science, all you need is evidence to win. The scientific community will listen to anyone if they have the goods. Like the great scientist he was, Charles Darwin wrote that he hoped he would never be so loyal to any idea, no matter how cherished, that he would not let it go if faced with contrary evidence. If evolution is ever shown

“Those who insist on denying evolution should at least understand what it means to hold such a strange position.”

to be wrong then science will adjust and move on. Science changes all the time. The world’s scientific community is a wonderfully contentious culture that constantly admits errors and corrects itself. That’s why it is so productive.

Those who insist on denying evolution should at least understand what it means to hold such a strange position. Believing that life on earth does not evolve and the age of the Earth is less than 10,000 years old brings one closer to the Dark Ages than many people may realize. Such a stance does not merely oppose one theory in one branch of science. Rejecting evolution and the true age of the Earth (4.5 billion years) means rejecting the modern fields of biology, zoology, entomology, microbiology, medical science, botany, marine biology, paleontology, anthropology, astronomy, cosmology, geology and so on. Believing that the Earth is 10,000 years old is like believing the distance from Grand Cayman to Miami is less than one-tenth of an inch. Yes, it’s that ridiculous.

Finally, I offer a humble suggestion. There is so much that we do not yet know about ourselves, the Earth and the universe that none of us should frivolously turn our backs on the little we have figured out so far. Pretending life does not evolve is something

no one in the 21st century should view as virtuous. The lure of scientific discovery begs us to move forward always. With so many questions still to answer, so many mysteries to solve, how can we not get up and go? If religion is important to you, fine, bring it along for the ride. Many scientists have done just that. Isaac Newton, for example, was a Christian and arguably the greatest scientist ever.

It is clear in the case of evolution that one does not have to choose between religious belief and scientific discovery. The two are not mutually exclusive, as is proven by the many millions of believers who freely embrace modern biology today.

Guy P. Harrison’s columns appear twice per month in the Observer on Sunday. He can be contacted at guyfeedback@gmail.com

Recommended

The following sources can help one to gain a basic understanding of evolution. None of them require a deep academic background in biology to be appreciated.

Books:

- Evolution: The Triumph of an Idea**, by Carl Zimmer;
- The Ancestor’s Tale**, by Richard Dawkins;
- The Top 10 Myths about Evolution**, by Cameron M. Smith and Charles Sullivan;
- Why Darwin Matters**, by Michael Shermer;
- 50 Reasons People Give for Believing in a God**, by Guy P. Harrison

On the Web:

- “15 Answers to Creationist Nonsense” (*Scientific American*)

www.sciam.com/article.cfm?id=15-answers-to-creationist

- PBS evolution site:
www.pbs.org/wgbh/evolution/

DVD:

- “Evolution” (WGBH Boston)

