

Poplar Ridge Friends Meeting -- Message for Darwin Sunday, February 14, 2016

by David A.V. Eckhardt

PRELUDE

Good morning and welcome to all.

As well as the first Sunday of Lent and Valentine's Day, today is Darwin Sunday, and Evolution Weekend 2016, which is celebrated in ecumenical and sectarian services around the world. Darwin was born two days and two-hundred and seven years ago, February 12, 1809, in Shrewsbury, England. By his death in 1882 at an age of 73, he had changed the world with his intellectual brilliance and boldness. Before Darwin, most biologists believed that God created every species of life on earth, including us, in final forms that were perfectly suited to their environments. It was Darwin who demonstrated that any species may vary and change over time, in adaptive responses to changes in environmental conditions. Individuals and species that did not adapt often did not survive, whereas the fittest of the species and their genetic progeny did survive, through a process he termed 'evolution by natural selection.' He not only revolutionized the course of biology, but also how scientists, philosophers, and theologians understand our place in Nature.

Let us celebrate this beautiful day with **our first hymn, Number 32** from the Green book: **'Morning has Broken.'**

We have five Readings for today:

- 1. From the Good News Translation of the Bible, Genesis 1:20-24:** Then God commanded, "Let the water be filled with many kinds of living beings, and let the air be filled with birds." So God created the great sea monsters, all kinds of creatures that live in the water, and all kinds of birds. And God was pleased with what he saw. He blessed them all and told the creatures that live in the water to reproduce and to fill the sea, and he told the birds to increase in number. Evening passed and morning came—that was the fifth day. Then God commanded, "Let the earth produce all kinds of animal life: domestic and wild, large and small"—and it was done.

2. **From Darwin's own words:** "As far as I can judge, I am not apt to follow blindly the lead of others. I have steadily endeavored to keep my mind free, so as to give up any hypothesis, however much beloved, as soon as facts are shown to oppose it."
3. **The Irish Science Historian Benjamin Farrington wrote in 1966:** "Darwin in the 19th century performed a service like that of Galileo in the 17th century. He forced the orthodox to revise their attitudes to their sacred beliefs. The effect of these two men has been permanent. They brought to an end the practice of using the Bible as an authority on physical and biological sciences -- a thoroughly wholesome development."
4. **From E.O Wilson, the eminent Harvard biologist who has advanced the concept of social evolution by group selection:** "The origin of the human condition is best explained by the natural selection for social interaction -- the inherited propensity to communicate, recognize, evaluate, bond, cooperate, compete, and from all these the deep, warm pleasure of belonging to your own special group. It is social intelligence enhanced by group selection that made humans the first fully dominant species in Earth's history." More on this topic from E.O. Wilson will follow. And...
5. **From Richard Dawkins, Evolutionary Biologist, Oxford Fellow, and author of the *Selfish Gene*:** "Our animal origins are constantly lurking, even if they are filtered behind complicated social evolution."

And a bit of humor: The zookeeper observed an ape reading both the Bible and Darwin, and so he asked the ape why this was. The ape responded, "I am trying to know if you are my brother's keeper, or if I am my keeper's brother."

Our second hymn is Number 29: 'This is our Father's World.' The original hymn of two verses was written in 1901 by a Presbyterian minister in Lockport, NY. The third verse was added in 1995 by a Quaker, Barbara Olmsted, while at Pendle Hill.

Now is our time to express any and all Joys and Concerns.

INTERLUDE

Let us join our hearts in this Prayer:

A Prayer for Simplicity and Peace, by the Australian poet Michael Leunig

We give thanks for places of simplicity and peace.

Let us find such a place within ourselves.

We give thanks for places of refuge and beauty.

Let us find such a place within ourselves.

We give thanks for places of nature's truth and freedom,
of joy, inspiration, and renewal,

Places where all creatures may find acceptance and belonging.

Let us search for these places in the world,
in ourselves, and in others.

Let us restore them.

Let us strengthen and protect them, and

Let us create them.

May we mend this outer world

according to the truth of our inner life

And may our souls be shaped and nourished by Nature's eternal wisdom.

Our third hymn is Number 8: 'How Great Thou Art.' This hymn was translated in 1953 by an English missionary from a Ukrainian version of an 1886 Swedish folklore tune.

It is time for those younger folks who so wish to join together downstairs.

MESSAGE:

Evolution Weekend is an annual event sponsored by *The Clergy Letter Project*, whose goal is to promote serious discussion and reflection on the relationship and compatibility of religion and science. This statement is from the Project's website:

"Religious people from many diverse faith, traditions, and locations around the world understand that evolution is quite simply sound science; and for them, it does not in any way threaten, demean, or diminish their faith in God. In fact, for many, the wonders of science often enhance and deepen their awe and gratitude towards God."

More than 14,000 Christian clergy, Jewish rabbis, Unitarians, and Buddhists have signed in support of the *Letters*. In 2016, 363 Congregations representing 48 States, the District of Columbia and 11 Countries are participating in Evolution Weekend 2016. Howard Nelson represents the Poplar Ridge Friends Meeting in the *Clergy Letter Project*, and we thank him.

When asked about his religious views, Charles Darwin's response was that he "considers the theory of evolution to be quite compatible with belief in God. But you must remember that different people have different definitions of what they mean by God." That concise statement, to me, summarizes a wise answer to a question that many of us, even agnostics, have strived to address. In my last Message to this Meeting, on Darwin Sunday three years ago, I tried to give examples of how I perceive God, as a scientist and as one who has a faith that there is more to our existence than we can ever know. But in everyday life, evidence of God is elusive. An early Quaker, Isaac Penington, wrote in 1670, "It is not enough to hear of Christ, or read of Christ, but this is the thing—to feel him to be my root, my life, and my foundation." I believe this, but my faith is also strengthened when I see God in others, in Nature, in sunsets over the Lake, in the Air around us, in this Meeting. I like to see the word *Nature* with a capital *N* and *Earth* with a capital *E*, as most see the word *God* with a capital *G*. I believe in evolution, not only in individuals according to classic Darwinian theory of natural selection and survival of the fittest, but also in the more recent

advances in evolution theory that include social evolution and group selection. I will come back to these concepts of Sociobiology in a short time.

Charles Darwin was raised in a traditionally devout Anglican family, and early on he studied medicine and then for the clergy but failed to proceed in either. His studies in biology at Cambridge were below average, and in his early career as a practicing biologist he was content with collecting specimens. By age 50, however, Darwin had assembled enough compelling evidence to co-published his theory of evolution in an 1859 book *On the Origin of the Species*. It took considerable debate, including serious attacks on his character from religious “literalists” before the scientific community and much of the general public accepted evolution. The emergence of the modern evolutionary synthesis in the 1930s to the 1950s, and more recently the expanding body of genomics and systematics research, provide overwhelming evidence that natural selection is the basic mechanism of evolution. In modified form, Darwin's scientific discovery is now the unifying theory of the life sciences and explains the diversity of all life on Earth.

Later in life, in view of his scientific discoveries, Darwin struggled to resolve his belief in God -- to quote Darwin: “The impossibility of conceiving that this grand and wondrous universe, with our conscious selves, arose through chance seems to me the chief argument for the existence of God; but whether this is an argument of real value, I cannot decide.”

The eminent late Harvard paleontologist Stephen Jay Gould shared with Darwin the view that science and religion are not antithetical, and that clashes only occur when “One domain tries to usurp the proper space of the other. ... Lack of conflict between science and religion arises from a lack of overlap between their respective domains of expertise -- Science in the empirical constitution of the universe, and Religion in the search for proper ethical values and the spiritual meaning of our lives. The attainment of wisdom in a full life requires extensive attention to both domains.”

One aspect of Darwin's observations and analysis of the natural world puzzled him in his later life, and he feared that without an answer it might be a significant weakness in his theory. The problem was *Altruism*, which may be defined as behavior in an animal that benefits another at its own expense; or, in humanistic terms, a *selfless* concern for the

well-being of others. It is the opposite of selfishness. The extreme example of altruism is the giving of an individual's life for the betterment and continuation of others. This behavior is extensively documented in certain insects, notably termites, ants, and honeybees in defending their social nests. Geese flying in V-formation show group support, with the lead goose alone bearing the full brunt of the headwind until another overtakes it. Altruistic self-sacrifice to save others, particularly in wartime, has many examples in humans. Natural selection leads us to expect individuals to behave in ways that increase their *own* chances of survival and reproduction, not those of others. By behaving altruistically, an individual reduces its own fitness and so should be at a selective disadvantage to those who behave selfishly. Thus Darwin questioned: why is such altruistic behavior not eliminated by natural selection?

An answer in part is addressed in the recent studies of Sociobiology. A leading proponent is Edward O. Wilson, the eminent Harvard biologist who is the world's leading expert on the social aspects of ants and termites, and who has expanded Darwin's theory to explain the evolution of human nature, social behavior, and group selection.

E.O. Wilson maintains that selfish individuals may dominate altruistic individuals, but groups of altruists will dominate groups of selfish individuals. The trait of altruism has evolved in humans since our ancestral species began to form social groups that promoted working together to hunt, gather, shelter, protect and procreate. The successful (the most fit) tribes that survived, and passed on their genetic dispositions, were those that contained more altruistic than selfish individuals. Within us today, these often conflicting instincts are still very present -- to serve oneself versus serving others. Selfish activity within a group provides a person with a competitive Darwinian advantage by supporting the individual's biological selection, but selfish activity is commonly destructive to the group as a whole. However, on the level of group selection, altruism increases the survival and the subsequent evolutionary success of the group as a whole. Thus, according to Wilson, individual selection is favored by selfishness, but group selection is favored by virtue. He regards this internal conflict of conscience -- selfish versus altruistic behavior -- as a "timeless human quality that has allowed our species to dominate the world" (for better or

worse). To quote Wilson: "It is a biological trait fundamental to understanding the human condition, and necessary for the survival of the species. It is the essence of the human character, and the source of our creativity." For his contributions to sociobiology and his insights to the evolution of human nature, many regard E.O. Wilson as our generation's greatest biologist, a top intellectual thinker of the century, and as the logical heir to Darwin.

In composing today's Message, I have had a continuing image of Charles Darwin meeting E.O. Wilson, with the two enjoying each other's company and sharing biological and intellectual discussions, possibly over a fine dinner at Howard and Stephanie's table. Darwin would be absolutely amazed at the advances in biology, and in science and technology in general. And he would be gratified that his controversial theory would be so strongly vindicated, let alone expanded upon with today's modern genomic research among various species, as well as the human genome. He would be enthralled by E.O. Wilson's concepts of sociobiology and his thoughts on the evolution of human nature. And I can imagine that both of them, admitted agnostics in face of their scientific rigor, would find solace and a welcome place here at this Meeting. I suspect that both men would also approve of the altruism that so intently characterizes this group, and they might even bless our evolutionary success.

Our final hymn this morning is Number 1: 'All Things Great and Beautiful,' written by the daughter of a British army officer and wife of an Anglican archbishop. It was published in 1848, before Darwin's birth, to affirm that God created Man and Earth. Recall Darwin's words in this singing -- "But you must remember that different people have different definitions of what they mean by God."

Let's sing all five verses.

CLOSING REMARKS

At Darwin's funeral, his friend Thomas Huxley proclaimed the epitaph, paraphrasing Emerson : "Beware when the great God lets loose a thinker on this planet!"

That his concept of evolution would continue today to be mis-interpreted and outright rejected as heresy by a large population of Americans would no doubt deeply trouble Charles Darwin, as would the outright rejection of the science of climate change. To quote from one of the Clergy Letters: "The Bible is the primary source of spiritual inspiration and of values for us and for many others, though not for everyone, in our society. It is, however, open to interpretation, with some taking the creation account literally and some preferring a figurative understanding. It is possible to be inspired by the religious teachings of the Bible while not taking a literalist approach, and while accepting the validity of science including the foundational concept of evolution."

On April 26, 1882, Charles Darwin was laid to rest in Westminster Abbey, next to the crypts of kings, queens, saints, and other great scientists, and directly next to that of Isaac Newton. Such a burial sanctioned by both Church and State demonstrated the general acceptance of Darwin's revolutionary theory within his lifetime. The Anglican Archbishop who presided stated:

"I read in his every line the healthy, noble, well-balanced wonder of a spirit profoundly reverent, kindled into the deepest admiration for the works of God. Calm in the consciousness of integrity, happy in the sweetness of home life, profoundly modest, utterly unselfish, exquisitely genial... Darwin will take his place with Newton and Pascal, among those who have not only served humanity by their genius, but who have also brightened its ideal by holy lives."