

# Evolution—January 2014

## UUFVB Covenant Groups

### Chalice Lighting

May we know once again that we are not isolated beings,  
but connected, in mystery and miracle,  
to the universe, to this community and to each other.

### Check-in: How is your spirit right now?

### Opening Reading

Evolution influences every aspect of the form and behavior of organisms. Natural selection comes about when adaptations increase fitness by aiding activities such as finding food, avoiding predators or attracting mates. Organisms at each strata of life can aid natural selection by co-operating with each other, usually by aiding their relatives or engaging in mutually beneficial behaviors. (David Sloan Wilson, *Evolution for Everyone*)

### Topic Exploration

Charles Darwin formulated a scientific argument for the theory of evolution by means of natural selection. Evolution by natural selection is a process that is inferred from three facts about populations: 1) more offspring are produced than can possibly survive, 2) traits vary among individuals, leading to different rates of survival and reproduction, and 3) trait differences are heritable. Thus, when members of a population die they are replaced by the progeny of parents that were better adapted to survive and reproduce in the environment in which natural selection took place. This process creates and preserves traits that are seemingly fitted for the functional roles they perform. Mutations and migration between populations also affect evolution. Despite the constant process of evolution and mutation, most of the genome of a species is identical in all individuals of that species. However, even relatively small differences can lead to dramatically different beings--for example, chimpanzees and humans differ in only about 5% of their genomes. (*Wikipedia*)

### Questions / Sharing

A. Gallup Poll. According to a Gallup poll published in June of 2012, 46% of Americans believe in the creationist view that God created humans in their present form at one time within the last 10,000 years. The prevalence of this creationist view of the origin of humans is essentially unchanged from 30 years ago, when Gallup first asked the question. About a third of Americans believe that humans evolved, but with God's guidance; 15% say humans evolved, but that God had no part in the process. More broadly, some 78% of Americans today believe that God had a hand in the development of humans in some way, just slightly less than the percentage who felt this way 30 years ago. Most scientists who study humans agree that the species evolved over millions of years, and relatively few scientists believe that humans began in their current form only 10,000 years ago without the benefit of evolution. Thus, almost half of Americans today hold a belief, at least as measured by this question wording, that is at odds with the preponderance of the scientific literature. ([www.gallup.com/poll/155003/hold-creationist-view-human-origins](http://www.gallup.com/poll/155003/hold-creationist-view-human-origins))

1. Do you personally believe that human beings developed from earlier species of animals? What do you think explains the differences in acceptance of the theory of evolution?

B. Creationism/Intelligent Design. By the start of the 20th Century, evolution was widely accepted and was beginning to be taught in U.S. public schools. However, between 1920-1980, an upsurge in Christian fundamentalism led many states to pass laws prohibiting the teaching of evolution, and/or dictating that

creationism, based primarily on the Bible's book of Genesis, be taught as well. Legal battles continued in states for years until the Supreme Court, in 1987, ruled that teaching creationism violated the Establishment Clause of the Constitution's First Amendment, which prohibits state aid to religion. The creationists then redefined their views as "creation science" and eventually "intelligent design," which claims that certain features of the universe and of living things are best explained by an intelligent cause, not an undirected process such as natural selection. Eventually the Supreme Court ruled that the teaching of intelligent design in science class is unconstitutional. (*Wikipedia*, evolution/creationism)

2. Do you know whether evolution or intelligent design are taught in local public schools? Do you believe intelligent design, or some form of that view of creation, should be taught in public schools, perhaps not as science but as religion or philosophy?

C. Bases for Human Evolution. According to David Sloan Wilson, distinguished professor of biology and anthropology at Binghamton University, humans are distinct from their ancestors by virtue of their capacity for symbolic thought, including but not restricted to language, which vastly exceeds that of any other species. A second distinction is our ability to socially transmit learned information, which we call culture. Finally, our ability to cooperate for the benefit of the group mimics evolution of all things on all levels. Wilson says these are the three "C's" of human evolution: cognition, culture and cooperation. (Wilson, *Evolution for Everyone*)

3. Why do you believe humans have developed differently than other species? Are the three "C's" (cognition, culture, cooperation) a sufficient way to define human evolution, and could they apply to other species?
4. Current religious, philosophical and political beliefs, as well as systems of ethics and morality, have all undergone evolution. Belief systems that have not enhanced human survival have fallen by the wayside. How do you think your belief system (and Unitarian Universalism) will fare under the laws of natural selection?

### **Closing Reading**

The same stream of life that runs through my veins night and day runs through the world and dances in rhythmic measures. It is the same life that shoots in joy through the dust of the earth in numberless blades of grass and breaks into tumultuous waves of leaves and flowers. It is the same life that is rocked in the ocean-cradle of birth and death, in ebb and in flow. I feel my limbs are made glorious by the touch of this world of life. And my pride is from the life-throb of ages dancing in my blood this moment. (Rabindranath Tagore, Reading #529, *The Stream of Life*)

### **Extinguish the Chalice**

We extinguish this flame but not the light of truth,  
the warmth of community, or the fire of commitment.  
These we carry in our hearts until we are together again.

### **Check-out and reflection on today's session**

### **Housekeeping**