

An Evolution of Thinking

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Charles Darwin was born 212 years ago on February 12, 1809. In recent years his birthday has been celebrated as <u>International Darwin Day</u>, an annual opportunity to celebrate the principles that guided his life: "perpetual curiosity, scientific thinking, and hunger for truth." These values resonate with our UU <u>Fourth Principle</u> of "A free and responsible search for truth and meaning" as well as our <u>Fifth Source</u> of "reason and the results of science."

Darwin's theories of natural selection and common descent were among the greatest intellectual achievements of the nineteenth century, so it is tragic that, even now, well into the twenty-first century—and long past the point at which the basic tenets of evolution became accepted basic science—we find ourselves—in view of our ongoing national "creation vs. evolution" debates—still struggling to come to terms with Darwin's.

Another reason it is important to celebrate Darwin Day annually in UU congregations is that both sides of Darwin's family were in large part Unitarian. And while it is true that Darwin was baptized in an Anglican Church, attended an Anglican boarding school, and was married by an Anglican priest—it is also the case that growing up, "Charles and his siblings attended the Unitarian chapel with their mother," and the liturgy used in his wedding to Emma Wedgwood was adapted to "suit the Unitarians" (Desmond & Moore, 279).

Some of our Unitarian and Universalist forebears were also among the earliest religious leaders to embrace the paradigm-shifting implications of Darwin's discoveries—that we humans are *not* a little lower than the angels; we are "a little higher than the apes" with whom we share a common ancestor. We now know, in the wake of the Human Genome Project, that at the DNA level, there is only a <u>1.23 percent</u> difference between humans and chimpanzees. We humans are not uniquely special creations; we are only *one* species *among many other evolved species*, deeply interconnected with the other forms of life and the varied ecosystems on this planet. As our UU <u>Seventh Principle</u> affirms, our invitation is to wake up to and have "respect for the interdependent web of all existence of which we are a part."

Along these lines, Darwin's favorite metaphor for experiencing ourselves as interrelated with the other beings and interdependent with the ecological environments of this planet, was the *tree of life*. Indeed, the single illustration in the first edition of Darwin's 1859 book *On the Origin of Species by Means of Natural Selection* was a tree-like graphic of species branching up and out over time (32-33). An early sign of Darwin's breakthrough discovery came a little more than two decades before *Origins*, in 1822, we find an early sketch in his notebook of the tree of life in the upper lefthand corner, along with the words "I think".

Here's a more dynamic, twenty-first century version of the tree of life—expanding in all directions. But it is based on the same basic insight that Darwin had more than 150 years ago: all life on this planet began with single-celled organisms, only to evolve through natural selection into increasingly complex forms (6). After Darwin, we know that all living beings—including we human beings—are related due to our evolution from a common ancestor at the root of the tree of life—through what is called "common descent."

Regarding our UU Fifth Source's respect for "reason and the results of science," some of us grew up in homes that were pro-science; we learned an evolutionary view of the universe from an early age. Others may have grown up in homes that didn't think much about science one way or the other. Still others, like me, grew up in religious congregations that practiced various levels of hostility toward science. Indeed, if it's not too flippant to say so, the hard truth is that a lot of the theology I was raised with

was brought to me through the same folks who gave us the Scopes Monkey Trial, the 1925 legal case that sought to prosecute a high school science teacher for teaching about evolution. This trial was a major national flash point in the struggle between fundamentalist religion (which often emphasizes faith and tradition over modern science) and modernism (which seeks to reinterpret religious claims in light of scientific discoveries).

Here's the thing: although I was raised around folks who sometimes said dismissively, "Don't tell me I'm descended from a monkey," the more I learned over the years about the actual science of evolution, the more intriguing—and really beautiful—I found it to be. As it turns out, my same experience of an awed paradigm shift is wonderfully encapsulated in Darwin's own experience, which he describes movingly in the famous final paragraph of his 1859 book, *On the Origin of Species*.

Whereas many scientific texts are often poorly written, and become obsolete after new discoveries are made, Darwin's books are widely-praised classics, both for the beauty of their prose and for being well worth revisiting as examples of scrupulous scientific observation, sound hypotheses, and many of their conclusions. Because they are so well-grounded in their close observations of the natural world, much of his science has not become obsolete even more than a century and a half later. So, I invite you to consider anew these final words from the conclusion to *Origin*. Note that Darwin begins the following paragraph by naming aspects of life we often perceive as solely negative—and here's where his scientific genius comes in—he then highlights nevertheless how essential those difficult parts of reality are to the natural engine of evolution:

from the war of nature,
from famine and death,
the most exalted object
which we are capable of conceiving...
the production of the higher animals,
directly follows.

There is grandeur in this view of life...; and whilst this planet has gone cycling on

according to the fixed law of gravity,
from so simple a beginning
endless forms
most beautiful and
most wonderful
have been,
and are being,
evolved.

I often end my annual Darwin Day sermon with that quotation. For our purposes, however, it may be helpful to zoom out just slightly to the opening of that final paragraph, which includes another compelling and beautifully-crafted sentence that highlights the deep truth of our interdependence with all parts of the tree of life:

It is interesting to contemplate a tangled bank, clothed with many plants of many kinds, with birds singing on the bushes, with various insects flitting about, and with worms crawling through the damp earth, and to reflect that these elaborately constructed forms, so different from each other, and dependent upon each other in so complex a manner, have all been produced by laws acting around us.

Along these lines, as I have been reflecting on how most valuably to spend time considering the major Darwinian theme of interdependence, as well as other major themes of Darwin's life such as "perpetual curiosity, scientific thinking, and hunger for truth," one of the most obvious and currently relevant considerations is the relationship of evolution to our ongoing pandemic.

The novel coronavirus known as COVID-19 is, of course, itself a product of evolution—and continues to evolve. This virus has given us a shocking and disturbing reminder of our deep interdependence and interconnectedness, both with one another and with all beings and ecosystems on this planet. And in the coming months, the

percentage of our species willing to trust science will be a major determinant of how well we are able to make it through to the end of this pandemic.

Accordingly, it is disheartening and demoralizing to read headlines such as this one from *The Washington Post* earlier this month: "Wisconsin pharmacist who destroyed more than 500 vaccine doses believes Earth is flat." Or at the end of last month, to hear on National Public Radio that, "about 50 vaccination opponents and right-wing supporters of former President Donald Trump delayed COVID-19 vaccinations when they protested at the entrance to Dodger Stadium, the site of a mass vaccination campaign." The Washington Post also highlighted in late January that, "Large majorities of the region's nursing home workers have declined the coronavirus vaccine: Fueled by misinformation and mistrust, employees opted out.... "

How did we get to this point? Partly to blame is the intentional spread of disinformation fanning the flames of conspiracy theories. According to an NPR/Ipsos poll in December:

- about 40% of the American public believes the coronavirus was created in a lab in China, and 17% believe the patently false QAnon conspiracy theory that politics and the media are controlled by "a group of Satan-worshipping elites who run a child sex ring."
- 37% said they don't know whether Carl, either one?that one is true or not.

Other parts of the blame must be laid to historic failings in the past on the parts of scientists—and other times leaders in the U.S. government have lied to or misled "we, the people." Since we are in Black History Month, I'm reminded of the unethical Tuskeegee experiments, which the United States Public Health Service and the Centers for Disease Control and Prevention (CDC) conducted upon African-American men over a forty-year period, from 1932 to 1972—experiments directly causing the deaths of more than a hundred people. That travesty happened only fifty years ago, well within living memory. Because transparency and ethical conduct among scientists is vital to maintaining public trust in science and institutions upholding public health, I have been gratified to see a high level of transparency regarding how the successful COVID vaccinations have been produced.

There are other hopeful signs of the tide starting to turn toward a greater public trust in science. For instance, last month, President Biden <u>announced</u> that he was elevating the Director of the White House Office of Science and Technology Policy to a Cabinet-level position.

To say more about how we can more skillfully respond to those who believe conspiracy theories and disinformation, I preached a <u>whole sermon</u> a few years ago on what to do when you encounter someone who disputes the basic facts of a situation. That sermon, along with most of my previous sermons, is available in our digital <u>Sermon Archive</u>. I can't dive fully into that sermon right now, since it may be helpful to briefly revisit some of the most helpful highlights, I will give you the quick, five-minute version.

Whenever I find myself in a situation in which there seems to be a lack of shared reality, a book that sometimes comes to mind is *The Cynic & the Fool* by Tad DeLay, a scholar who writes at the intersection of psychoanalysis, philosophy, and theology. DeLay's work offers an important reminder that if we can't agree on the facts, how we proceed will sometimes depend upon what is going on *underneath* our disagreement.

To use DeLay's somewhat blunt categories, it really matters whether the facts in dispute arose because we were engaging with a "misinformed but honest fool" or we are dealing with a nihilistic cynic who cares little about the truth—and cares most about saying or doing whatever it takes to spin doctor perception and amass power (3).

So when I find myself encountering nearly Orwellian doublespeak, I remind myself periodically of the Philip K. Dick line that, "Reality is what doesn't go away even when you stop believing in it." There is no such thing as an "alternative fact." A fact is something that is "indisputably the case." And as we saw with the January 6th storming of the U.S. Capital, there can be consequences for one or more parties when "reality" catches up with propaganda, either in the short- or long-term. (We could trace similar dynamics around climate change denial.) In the meantime, arguing with someone who is operating in bad faith can be exhausting at best and deeply harmful at worst.

So, having named some of what we are up against, if we want to increase our odds of changing someone's mind, here are a few strategies. First, make sure everyone involved is relaxed and well-rested. Do you know the acronym HALT? If one or more people involved is Hungry, Angry, Lonely/stressed, or Tired, there is a decreased likelihood of anyone's mind being changed. In that case, halt—stop!—if possible, and attend to those unmet physical or emotional needs before proceeding.

A second way of increasing our chances of having a productive dialogue is to ask the other person if they would be willing to try doing the following process along with you: "Both of you go to a quiet place where you are relatively free from stress or distraction and write down what you know about the opposing arguments to your belief. Also, write down what it would take for you to change your mind." This practice can potentially expose one of two things for each of you:

- That potentially there is nothing that could change one or both of your minds, in which case it may be better to stop talking about the subject at hand, if that is possible. These are what the courts call "irreconcilable differences," or
- 2. You may identify the data that would be most likely to convince either or both of you (Gorman 140-141).

A more advanced technique is called **"motivational interviewing."** I'm going to use the example of early childhood vaccinations, but there are direct parallels to COVID vaccinations:

If a parent tells you that they think vaccines are dangerous and they are thinking of not getting their children vaccinated, the best first thing to say to this statement is not, "That is not true—there is no evidence that vaccines are dangerous," statements which may harden the listener in her beliefs.

Instead, gently prod the person into exploring their personal feelings by saying something to the effect of "Tell me more" or "How did you come to feel nervous about vaccines?" You can then guide the person through a slowed-down, articulated version of their thought process that brought them to the conclusion that "vaccines are dangerous." Along the

way, they may express their main desire, which is to keep their children safe and healthy....

Identifying the underlying value or desire is a key turning point of motivational interviewing. You're trying to find the deep motivation (i.e., "keeping my children safe and healthy") beneath their surface fear about vaccines.

After prioritizing *deep listening* over initially disputing facts, you can eventually ask questions that highlight angles this person may not have considered. So you might ask:

- "Do you know how many children who are vaccinated were diagnosed with autism within the year?"
- "I wonder how many children who are not vaccinated get autism" or
- "What are the dangers of not vaccinating your child?" (170)?

There's a lot more to say about all this, but I hope I have given you some tools for moving forward, depending on whether you are dealing with a person acting in *good faith* (sincere, but uninformed or misinformed) or a *bad faith* actor who is a con man, charlatan, or snake oil salesman.

Here's the thing: science can't help us with everything. There are some parts of life that are spookier, weirder, and not easily replicable in laboratory conditions. But as Darwin and so many other brilliant scientists have shown us through the ages, we should do everything we can to pay attention to the areas of life that science can help us with. It is science, aided by technology, that is after all making it possible right now in this moment to be connected in real time on a video conference across vast distances. That's not just my opinion; it's a fact. So we need to listen and change our behavior when the strong consensus of scientists shows us evidence in a clear, compelling, transparent way about how we can mitigate the worst effects of climate change, about the effectiveness and safety of COVID vaccinations, and more.

We are living through a time of deep polarization, and there are ways that science can help shift our perspectives if we will let it. I'll move toward my conclusion with one of the most powerful examples of this truth.

More than fifty years ago on Christmas Eve of 1968, three astronauts, the crew of Apollo 8, became the first human beings to leave Earth's orbit. They were able to

take the first photo of our planet from space. It is not a coincidence that fifteen months later, the first Earth Day was celebrated in April 1970. That first visual image of the Earth helped catalyze the burgeoning environmental moment. Science can catalytically shift our worldview if we'll let it.

Along those lines, my favorite astronaut quote comes from Edgar Mitchell from Apollo 14, who said that from the point of view of space,

You develop an instant global consciousness, a people orientation, an intense dissatisfaction with the state of the world and a compulsion to do something about it. From out there on the moon, international politics look so petty. You want to grab a politician by the scruff of the neck, and drag him a quarter of a million miles out and say, "Look at that, you [bleep]."

Now, I readily admit that I can sometimes get lost in those petty squabbles that Edgar Mitchell criticizes. But I am always grateful for reminders such as "Earthrise" that point me back to the bigger picture. Developing a *global* consciousness and cultivating a cosmic awareness of *deep time* and *big history*—of our place in this 13.7 billion year-old universe story with more than 2 trillion galaxies—that cosmic perspective can be one of the most powerful tools in working toward achieving our UU <u>Sixth Principle</u>: "The goal of world community with peace, liberty, and justice for all." May we all open our hearts, minds, and spirits to the cosmic truths that science continues to reveal to us.