THE REAL THING: ON DREAMS, REALITY, AND THE SEARCH FOR TRUTH

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"The great scientists want, above all, to discover truths about nature (in addition to acquiring glory, grants, and tenure and improving the lot of humankind); they want to *know*. ... They also believe, as I do, that the quest for knowledge is by far the noblest and most meaningful of all human activities."

John Horgan

"In Highland New Guinea, now Papua New Guinea, a British district officer named James Taylor contacted a mountain village above three thousand feet whose tribe had never seen any trace of the outside world. It was the 1930s. He described the courage of one villager. One day, on the airstrip hacked from the mountain near his village, this man cut vines and lashed himself to the fuselage of Taylor's airplane shortly before it took off. He explained calmly to his loved ones that, no matter what happened to him, he had to see where it came from."

Annie Dillard

"The secret of success is sincerity. Once you can fake that, you've got it made."

Jean Giraudoux

"On many occasions I have in sleep been deceived."

Rene' Descartes

How does one know what is true? Rene' Descartes (1596-1650) was one of the major figures of the Enlightenment. He was a genius mathematician and co-inventor of calculus. In addition, he was a philosopher, spending much of his efforts trying to establish a solid basis for thought and action. How do we arrive at what is true, he asked, and, in that endeavor, how can we avoid being deceived? In his *Meditations*, he references the mentally ill who

...think they are kings when they are really quite poor, or that they are clothed in purple when they are really without covering, or who imagine they have an earthenware head or are nothing but pumpkins or are made of glass. But they are mad. ...At the same time, I must remember that I am in the habit of sleeping, and in my dreams representing to myself the same things or sometimes even less probable than those who are insane in their waking moments. How often it has happened to me that in the night I dreamt that I found myself in this particular place, that I was dressed and seated near the fire, whilst in reality I was lying undressed in bed! ...On many occasions I have in sleep been deceived by similar illusions ...and there are no certain indications by which we may

clearly distinguish wakefulness from sleep that I am lost in astonishment. And my astonishment is such that it is almost capable of persuading me that I now dream.

In the middle of the night, it is not likely that you and I have been doing philosophy, but we have all been in Descartes' proverbial shoes, or bed, not knowing whether what was in our minds was *real* or part of a steadfast, and bedfast, dream. Those dreams can be bizarre and, sometimes, the attempt to make sense of them is equally bizarre. There's an old song by Franklin Pierce Adams, very funny, the chorus of which is:

Don't tell me what you dreamt last night; I must not hear you speak! For it might bring a crimson blush unto my maiden cheek. If I were you, that subject is a thing that I'd avoid — Don't tell me what you dreamt last night, for I've been reading Freud!

(I, for one, after reading Freud's *Interpretation of Dreams*, think that it tells us very little about the meaning of the dreams of people in general but quite a bit about himself; there is plenty of room for him on the couch.)

Dreams can be utterly strange and very frightening, as in nightmares. But there are other kinds. Think of the imagery of dying invoked by William Cullen Bryant in his poem *Thanatopsis*: "...approach thy grave, like one who wraps the drapery of his couch about him and lies down to pleasant dreams."

While in the midst of our dreams, pleasant or un, there seems to be not the slightest recognition that the dream is not a real happening. We are deceived. Thus, dreams are real experiences, but not of reality. They are illusory, and Descartes even noted, above, the logical extension of the experience, which is: how do we know that we are not dreaming right now? And one may suggest a still further extension of the conundrum, which is: am I and my dream all there is? Even the frivolous song has the idea: "Row, row, row your boat, gently down the stream. / Merrily, merrily, merrily, life is but a dream." Edgar Allen Poe wrote, "All that we see or seem / Is but a dream within a dream." Taken literally, the name for that idea is solipsism, and, since each and every experience of the outer world comes to us only in our minds, there is no way to prove that other minds exist. Many have tried. Someone could punch you in the face, but you could dismiss the experience by saying to yourself, "Wow! My dream just included the sensation of someone punching me in the face!"

Of course, no one can live that way, apart from an asylum. In order to be certain that the external world exists, Descartes had to first be sure of his own existence. Thus, he came up with his famous statement, *Cogito ergo sum*: "I think, therefore, I am." Perhaps that simply boils down to the way all of us must operate; we make the same sort of logical inference, but without all the preliminaries. The type of reasoning that we call common sense tells us that others must experience reality much the way we do. That we accept as truth. Of course, there are variations on Descartes' formula: Hugh Hefner, in his Play-boy mansion, was saying, in effect, "I fornicate; therefore, I am." Pro-wrestlers and fight-champions signal that their identity is cemented to winning: "I pulverize others; therefore, I am." (Mohammad Ali really

was a great boxer, but he would have been even greater, if he had not always been saying, "I am the greatest!" --An attitude that is not so great on the humility scale. Of course, there would be something contradictory about giving trophies for humility.)

Reason is our best way to assess so much of how the world works. But have you heard of the Sophists? Intermingled with the philosophers of ancient Greece who exalted reason, the Sophists carried reason to extremes. They said, for instance, that an arrow can *never* reach its target. For, "it stands to reason" that, in order to get to the bulls-eye, it first has to get halfway. No disputing that, right? Then, half-way, again, and again, and again, *ad infinitum*. So, reason says that, after many divisions and subdivisions, it will get very, very, very close, but never *all* the way. Impossible to refute, yet common sense says that you would not want to actually test the arrow's flight, nor that of a bullet, by standing in their paths.

Thus, reason can take a person down some convoluted routes. The human mind is such that we want to know the state of things, but consider a declaration such as, "This statement is false." What does it mean? If it really is false, then it is true. But if it is true, then it is false, and so on. Again, reason is not totally infallible in how it addresses the empirical world, but for so many of its aspects, and coupled with observations, it's the very best tool we have.

As is well known, Copernicus began the revolution of thought concerning the true nature of the solar system with the idea that the earth revolves around the sun. (Upon hearing of it, Martin Luther, in an informal Table Talk, said, "This fellow wants to turn the whole science of Astronomy upside down!" Luther would be famous for doing something similar in Theology, even standing up to the crown-wearer of The Holy Roman Empire, the monarch of most of Europe, but it appears that he did not approve of Copernicus.) Galileo, a hundred years later, gave the concept a more certain footing, this with observations made with the newly invented telescope. In his 1610 book *The Starry Messenger*, he writes: "On the thirteenth of January, four stars were seen by me for the first time, in this situation relative to Jupiter:"

East * O * * * West

He had been following the scene for a number of nights, and would continue to do so, finding that the "stars" changed positions, irregularly, from one side to the other. Sometimes, one or more would disappear, an indication that they were in orbit around Jupiter and their light was being eclipsed by the planet. The so-called stars were actually Jupiter's four largest moons. They gave him the analogy that, just as those moons revolved around the giant planet, so the earth and the other known planets all revolved around the immense central sun, thus serving to confirm the Copernican concept of the solar system.

In the six centuries since Copernicus, and the five since Galileo, how our picture of Creation has expanded! Some years ago, I gave a lecture at The Museum of the Rockies on the campus of Montana State University in Bozeman (where there is an excellent planetarium). I asked those in the audience to visualize their home addresses, and several were called out. Of course, I

then remarked that those addresses were very incomplete and that they should read, instead, something like this:

1602 West Evergreen Street, Bozeman, Gallatin County, Montana, United States of America, North American Continent, Western part of the Northern Hemisphere, Planet Earth, Solar System of the Sun (a G-type star), Outer Edge of the Orion Arm, Milky Way Galaxy, the Local Group of Galaxies, The Universe.

The listeners liked it, evidenced by the fact that I received several notes to our home with that sort of address. I wonder what went through the mind of the person who delivered the mail.

Copernicus and Galileo radically changed the way we view the largest aspects of Creation, and Darwin did the much the same concerning all of life on earth. In 1998, ecologist Paul Shephard wrote, "In this day of Darwin sensibility, it is no more necessary to defend biological evolution than it is to defend the roundness of the earth." Yes and no. Surely, the consensus among scientists of every sort is almost absolute: that evolution has occurred; that evolution is the explanation for the astonishing diversity of life on planet earth; that the evolutionary processes could operate because of the availability of immense spans of geologic time, i. e. hundreds of millions of years. However, in the public realm, there are those who, even today, still promote the bizarre concept of a flat earth. (There are "hollow-earthers," too, and their numbers are larger now than when Shephard wrote.) Regarding evolution, the portion of the public that rejects the concept has been spurred on by the growth of fundamentalist religion's literalist interpretation of the Bible. Thus, if the polls are accurate, it is now just *barely* a majority of the American public that assents to the truth of evolution.

The 19th century was when so many of the great debates took place concerning the proper role of science and its relation to other endeavors. At the forefront of it all of it was Thomas Henry Huxley. In a piece of correspondence to the devout Charles Kingsley in 1860, he stated,

Science seems to me to teach in the highest and strongest manner the great truth which is embodied in the Christian conception of entire surrender to the will of God. Sit down before fact as a little child, be prepared to give up every preconceived notion, follow humbly wherever and to whatever abysses nature leads, or you shall learn nothing. I have only begun to learn content and peace of mind since I have resolved at all risks to do this.

Heir to this spirit early in the next century was French paleontologist and Catholic priest Pierre Teilhard de Chardin, who wrote in *The Divine Milieu* of "the sacred value of every new truth," including that of evolution.

Huxley was "Darwin's Bulldog," so-called because of his strong defense of Darwin's concept of evolution by natural selection. His expositions were made not only in academia, but to ordinary citizens. On a Piece of Chalk is the title of his 1868 lecture to the workers of Norwich, when the British Association for the Advancement of Science happened to be meeting there. Huxley had the rare gift of being able to take profound thoughts and clothe them in clear and accessible language. On that occasion, he held up a piece of chalk of the sort that could be found in every

carpenter's toolbox. From that, he proceeded to walk his listeners through a doorway to the remote past to get a glimpse of the white microscopic diatoms that had laid down the thick white chalk sediments of the ancient sea that once covered England. He indicated that those layers were displayed in the White Cliffs of Dover and could also be penetrated in the digging of any well in the countryside. Weathering from the chalk were the bones of huge prehistoric marine reptiles and the shells of coiled and tentacled cephalopods, truly creatures of Another World. Because his speech was preserved, we can imagine being there, hearing the words of one of history's greats, and this at such a pivotal time. Thus, I include sections of his discourse, at some length:

I weigh my words well when I assert that the man who should know the true history of the bit of chalk which every carpenter carries about in his breeches pocket, though ignorant of all other history, is likely, if he thinks his knowledge out to its ultimate results, to have a truer, and therefore a better conception of this wonderful universe and of man's relation to it than the most learned student who is deep-read in the records of humanity and ignorant of those of nature.

Huxley then described a number of fossilized creatures that were eroding out of the various layers of the cliffs, including crocodiles –in what is now England! He also referenced the variations that those creatures exhibited in their successive positions in the strata:

Either each species of crocodile has been specially created, or it has risen out of some preexisting form by the operation of natural causes. Choose your hypothesis; I have chosen mine. I can find no warranty for believing in the distinct creation of a score of successive species of crocodiles in the course of countless ages of time. Science gives no countenance to such a wild fancy, nor can even the perverse ingenuity of a commentator pretend to discover this sense in which the writer of Genesis records the proceedings of the fifth and sixth days of the Creation.

...A small beginning has led us to a great ending. If I were to put the bit of chalk with which we started into the hot but obscure flame of burning hydrogen, it would presently shine like the sun. It seems to me that this physical metamorphosis is no false image of what has been the result of our subjecting it to a jet of fervent, though nowise brilliant, thought tonight. It has become luminous, and its clear rays, penetrating the abyss of the remote past, have brought within our ken some stages of the evolution of the earth. And in the shifting 'without haste, but without rest' of the land and sea, as in the endless variation of the forms assumed by living beings, we have observed nothing but the natural product of the forces originally possessed by the substance of the universe.

The truths of which Huxley spoke were laid bare by his rigorous employment of the scientific method, but there are other kinds of truth. "Coke: it's the real thing." There have many variations of that advertising slogan for Coca Cola going back to the 1940s, appealing to our fundamental desire for things to actually be what they claim to be. Granted, for soda pop, the pitch was hugely overblown, but it tapped into the unspoken need within us for truth in the sense of the genuine article.

Thus, The Real Thing includes truth in a broad sense: being true to oneself and being true to others. There is staying true to the course, being true to one's promise, and finding one's true love. There is not only true knowledge but true faith, devotion, and fulfillment.

It is attending to those underlying values and commitments that determine character, whether of an individual or of an age. One of those core human values is, indeed, that commitment to Truth, not only regarding facts, as on the multiple-choice Chemistry test, but Truth in terms of what is most in keeping with our humanity. Those qualities are understood, not in terms of some lowest common denominator, but of the best and highest. It is the sort of thing of which Martin Luther King, Jr. spoke in his "I Have a Dream" speech. That we may never fully arrive is not the point. As Robert Browning wrote, "A person's reach should exceed his grasp, or what's a heaven for?" Oscar Wilde expressed it well: "A map of the world that does not include Utopia is not worth even glancing at, for it leaves out the one country at which Humanity is always landing. And when humanity lands there, it looks out, and seeing a better country, sets sail." There is no final destination, but in the tireless search for it is humanity at its best, striving "to create a more perfect union," or some other lofty ideal. It is to work, patiently, persistently, at being what we know, at bottom, that we could be and *should* be. Frederick Buechner, in just a few words, summarizes the Christian idea of vocation: "The place where God calls you to is the place where your deep gladness and the world's deep hunger meet."

The quotation in the introduction to this essay, about "faking sincerity," is the oxymoron-type statement that one hopes would be found, upon reflection, to be more disturbing than funny. The statement has often been attributed to comedian George Burns, who used just a slight variant of it concerning "honesty," as a jab at the movie/acting community. Earlier, something very much like that was said by Oscar-winning actress Celeste Holm about her profession. But the most likely original source is Giraudoux, the French novelist, essayist, playwright, who was a diplomat, also. (I always thought it originated with Ronald Reagan, the Actor turned President; he had those angled-up eyebrows that visually suggest sincerity of the sort upon which many a politician relies for winning elections. "You can tell, just by looking at him, that he is *so* sincere!") And –let's be honest— mere appearance often works, in spite of the fact that what we see may simply be a façade hiding the real person, one who traffics in falsehoods. In personalities, as in prospecting, "all that glitters is not gold."

The totally chilling effect of the Westworld science-fiction films, both the old one of 1973 and the new version, is that it is almost impossible to distinguish the fabricated and false people from those of flesh and blood. In real life, sociopaths, with no finer feelings whatsoever, often employ one or another variant of "I love you; you're very special," in order to get what they want. As the Giraudoux-Holm-Burns quote might suggest, often that is a fraudulent front, a pretense aimed at mass manipulation. In many and various ways, things are not always as they seem. Kierkegaard, in his *Journals*: "Not everyone who has round shoulders is an Atlas, or got that way from carrying the weight of the world." Thus, sincerity, by itself, is no mark of truth, for the additional reason that one who actually *is* sincere may also be quite simply and sincerely wrong.

Still another dimension: sometimes, people are not only unable but are unwilling to distinguish the false from the true. It was quite some time ago that historian Daniel Boorstin (who served for twenty years as The Librarian of Congress) warned about trends in this direction in his 1967 book, *A Guide to Pseudo-Events in America*. In choosing media that merely reflects our predispositions, a fabricated and fantasy world is created to displace the natural one: "We risk being the first people in history to have been able to make their illusions so vivid, so persuasive, so 'realistic' that they can live in them. We are the most illusioned people on earth. Yet we dare not become disillusioned, because our illusions are the very house in which we live; they are our news, our heroes, our adventure, our forms of art, our very experience."

One is reminded of the words of T. S. Eliot in *Murder in the Cathedral* that "Humankind cannot bear very much reality." W. H. Auden's assessment in *Epilogue* also applies:

We would rather be ruined than change, We would rather die in our dread Than climb the cross of the moment And let our illusions die.

We are reminded, too, of Plato's famous analogy of the cave, as related in *The Republic*. Today, it's one of the few bits of philosophy that is likely to be read by those (also few) students getting a minimal exposure to the subject. Plato imagines a group people who know nothing but darkness. They have been chained, underground, in such a manner that their sight is confined merely to flickering shadows from the world above that are cast on the cave walls, and they have come to believe that those illusions are reality. Plato indicates that, if one of those prisoners is freed and led to the surface, he suffers greatly. Blinded by the glare of day, he is unable to see and longs to return to the darkness. However, he eventually becomes accustomed to the light and wants to share with his fellow captives the news of the real world that he has discovered. But when he descends into the dark realm again, he is ridiculed and despised by all the others, for they do not want to hear about it. (Eliot's phrasing in in *The Family Reunion* would fit: "Hold tight, hold tight, we must insist that the world is what we have always taken it to be.") Plato concludes, "As for the man who tried to free them and lead them upward, if they could somehow lay their hands on him and kill him, they would do so."

Twenty-four centuries old, but the analysis could have been written yesterday. Death threats abound in our culture's electronic communication formats, even against election officials who simply report actual results. Threats are made even by politicians themselves, hatefully directed against others who dare to simply "tell it like it is." The words of William Butler Yeats would self-describe many in our time, if such minds could ever speak honestly:

We had fed the heart on fantasy, The heart's grown brutal from the fare.

That observation has proven accurate, even when the "cross of the moment" consists simply of wearing a mask in order to help slow a deadly virus for the common good. The medicine of denial is the preferred drug, and the mental vaccination selected is the one that protects against the facts. Multitudes appear to have psychological needs that lead them to live in what

is being called "alternate realities." Millions seem determined to embracing even the Big Lie of a stolen election, casting the murderous insurrection as Capitol tourism, thus displaying the extreme extent of the disconnect and evil behind it. Conspiracy theories are embraced, one after another, each one seeming to be more radical than the last. Consider the Qanon propaganda holding that the country is *really*, in the sense of "actually, ruled by an elite cabal of Democrats who drink the blood of children to stay young. Can you get any more any more bizarre, insane, and detached from reality than that? It remains to be seen how democracy can thrive, or even survive, if a huge portion of the public, schooled by Donald Trump's promotion of "fake news," holds Truth to be merely on the same level as opinion, equating and preferring wishes and irrational gut-feelings to relevant data and choosing the illusory over the real. The blatant disregard for well-established historic facts and for scientific truths, alike, should be hugely disturbing to anyone, for war is one of the consequences; it always has been. It has been said that, in war, Truth is the first casualty, and that surely is the case in the present one, waged by another Liar in Chief, Putin, and it shocks and hugely impacts almost the entire world. (Trump, as well as some others in his party, instead, issued praise at the invasion!)

At a lesser level of concern, but still important, because feelings of superiority are always ripe for exaggeration and manipulation, is the phenomenon of many voices touting their claim to be "real patriots" and "real Americans," implying that others are not. Such phrases were used often by Sarah Palin in her Vice- Presidential election run, and we continue to hear them in this polarized time of "us vs. them." The general idea has been around for a long time. In 1937, Ralph Linton made it the subject of his essay, One Hundred Per-Cent American. Clever, indeed, and full of laughs, it's his satire on people who think that giving has been just a one-way street, from inventive America to other nations, and that we are, therefore, so superior. These three paragraphs are just a portion:

There can be no question about the average American's Americanism or his desire to preserve this precious heritage at all costs. Nevertheless, some insidious foreign ideas have already wormed their way into his civilization without his realizing what was going on. Thus, dawn finds the unsuspecting patriot garbed in pajamas, a garment of East Indian origin, and lying in a bed built on a pattern which originated in either Persia or Asia Minor.

...On awakening, he glances at the clock, a medieval European invention. ...Even his bathtub and toilet are but slightly modified copies of Roman originals. ...The American washes with soap invented by the ancient Gauls. Next, he cleans his teeth, a European practice which did not invade American until the latter part of the eighteenth century. He then shaves, a masochistic rite first developed by the heathen priests of ancient Egypt and Sumer. The process is made less of a penance by the fact that his razor is of steel, an iron-carbon alloy discovered in either India or Turkestan. Lastly, he dries himself on a Turkish towel. ...He puts on close-fitting tailored garments whose form derives from the skin clothing of the ancient nomads of the Asiatic steppes and fastens them with buttons whose prototypes appeared in Europe at the close of the Stone Age. ...He gives himself a final appraisal in the mirror, an old Mediterranean invention, and goes downstairs to breakfast.

Here, a whole new series of foreign things confront him. His food and drink are placed before him in pottery vessels, the popular name of which –china—is sufficient evidence of their origin. His fork is a medieval Italian invention and his spoon a copy of the Roman original. He will usually

begin the meal with coffee, an Abyssinian plant first discovered by the Arabs. [...etc. etc.] If it looks like rain, he puts on outer shoes of rubber, discovered by the ancient Mexicans. ...Meanwhile, he reads the news of the day, imprinted in characters invented by the ancient Semites, by a process invented in Germany, upon a material invented in China. As he scans the latest editorial pointing out the dire results to our institutions of accepting foreign ideas, he will not fail to thank a Hebrew God in and Indo-European language that he is one hundred percent (decimal system invented by the Greeks) American (from Americus Vespucci, Italian geographer).

The Real Thing: to return to this aspect, what does it mean to be authentic, true to oneself and to others, too? Or not. That has been a pervasive theme in the best of literature in every age.

It was a century ago that attorney Edgar Lee Masters published *Spoon River Anthology*. His characterizations are of a broad spectrum of people who had lived and died there and were buried in the town's cemetery. They each answer, in their various ways, the question, "How did I live?" Masters gives us "Sexsmith the Dentist," who considered himself a realist, but who was, instead, merely a small-minded, materialist cynic:

Do you think that odes and sermons
And the ringing of church bells,
And the blood of old men and young men,
Martyred for the truth they saw
With eyes made bright by faith in God,
Accomplished the world's great reformations?
...Why, a moral truth is a hollow tooth
Which must be propped with gold.

How do we assess worth or value? Watch *The Antiques Roadshow* on television, and you quickly learn that the real thing is often worth tens of thousands, or even millions of dollars, while a copy or imitation has little value or is worthless --and that refinishing an antique proves to be a disaster, money-wise. On the program, the more enduring value of the piece: painting, furniture, statue, is mostly overshadowed by the ever-present focus on the monetary aspect. Could even Michelangelo's *David* also be for sale, if the price were high enough? (I just read that one of the Ultra Rich, "with money to burn," apparently, paid \$2,200,000 for a baseball jersey worn by Mickey Mantle.) What else could be done with such a sum? And aren't there things that are priceless? Such as the Gospels' Pearl of Great Price, for which one would trade everything else and still have driven a magnificent bargain, i. e. faith? And if one cannot tell the difference, that is tragic indeed. In one of Hemmingway's short stories, A Clean, Well-Lighted Place, there is this dialogue referencing a customer sitting in a dark corner of a café:

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"Last week he tried to commit suicide," one waiter said.
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[&]quot;Why?"

[&]quot;He was in despair."

[&]quot;What about?"

[&]quot;Nothing."

"How do you know it was nothing?"
"He has plenty of money."

Money, and the things that money can buy, and the status signaled by their acquisition: those are the dominant themes in our culture, laid bare in advertising, both blatant and subtle. At the same time that Masters was publishing his work on Spoon River, Sinclair Lewis was putting his pen to *Babbitt* (published in 1922), a novel about George Babbitt, a "go-getter-businessman" and prominent character in the town of Zenith. The compulsion to 'fit in" ended by estranging him from his own self, indicated at one point by his statement, "I never did anything I wanted to do in my entire life." Perhaps it's not too much to say, when it comes to the grip that consumerism, status, and conformity have upon people, that only the surface props have changed between then and now and, even those, not so much. Babbitt, in a nutshell:

Just as he was an Elk, a Booster, and a member of the Chamber of Commerce, just as the priests of the Presbyterian Church determined his every religious belief and the senators who controlled the Republican Party decided in little smokey rooms in Washington what he should think about disarmament, tariff, and Germany, so did the national advertisers fix the surface of his life, fix what he believed to be his individuality. These standard advertised wares —toothpaste, socks, tires, cameras, instantaneous hot water heaters— were his symbols and proofs of excellence: at first the signs, then the substitutes, for joy and passion and wisdom.

Francis Bacon wrote that "Custom is the principal magistrate of man's life." The Norwegian writer, Henrik Ibsen would have agreed, it being one of the major themes that runs throughout his play, *Brand*:

Everyone now is a little of everything:
A little solemn on Sundays, a little respectful
Towards tradition; makes love to his wife after
Saturday Supper, because his father did the same.
A little gay at feasts, a little lavish
In giving promises, but niggardly in
Fulfilling them; a little of everything;
A little sin, a little virtue;
A little good, a little evil; the one
Destroys the other; and every man is nothing.

Other obstacles to becoming our best and truest selves include unworthy fears. At one point, Ibsen's title character says:

Every man
Is such an owl and such a fish, created
To work in darkness, to live in the deep;
And yet he is afraid. He splashes
In anguish towards the shore,
Stares at the bright
Vault of heaven, and screams, 'Give me air
And the blaze of day!'

Thus, in one way or another, all of this points to the place of authenticity. When I give talks on the science of paleontology, something I often do, I hold up a resin cast, an exact replica of the maxilla or upper jaw of the iconic meat-eating dinosaur *Tyrannosaurus rex*, a specimen that I located and dug out of sediments from the Cretaceous Period here in Montana. The original specimen is striking and 68 million years old, so there is always interest. However, when a fossil that is the real thing, not a replica, is shown ---even if it's just a single tooth, and the kids are allowed to touch it; or a foot-bone of the great horned dinosaur *Triceratops*, and the kids are allowed to hold it in their hands—then, there's a fascination at another level. There is a sense of wonder that is plainly visible. It gives me hope that appreciation for what is authentic will live on in the other realms we have been referencing, also.

What is most important --and not to be compared to physical objects of any kind-- is what has always been called "the heart" of it all, i. e. authenticity in terms of the inner core of a human being. It is this matter of being true to our ideal nature; it is the extent to which goodness dwells within. That inner disposition, as well as the outer actions in harmony with it, may be neither recognized by others nor be long remembered. Nevertheless, "...the growing good of the world is partly dependent on unhistoric acts; and that things are not so ill with you and me as they might have been, is half owing to the number who have lived faithfully a hidden life and rest in unvisited tombs." So wrote George Eliot (pen name for Mary Ann Evans) in the last lines of her 19th century British novel *Middlemarch*. Earlier, the same spirit is voiced by the main character, Dorothea Brooke: "That by desiring what is perfectly good, even when we don't quite know what it is and cannot do what we would, we are part of the divine power against evil —widening the skirts of light and making the struggle with darkness narrower." Thus, authenticity has to do with living the good life, helping to make things the way they are meant to be, for oneself and for others. It is holding fast to the qualities and realities that count the most.

And that desire for the real thing is, again, in line with Thomas Huxley's concerns, which were to understand how events actually play out in the natural world. For, there are such things as the laws of nature, the orderly actions and reactions of cause and effect, and the scientific method is the fruitful way to explore them.

All that is often ignored, as is the case with people who, even while living dangerously, imagine that they are immune from harm until "their number is up," a fatalistic idea ultimately derived from ancient astrology, the superstition of the stars. It is much the same with those who are willfully ignorant of basic physics, thinking that God's providence will protect them from inertia's blunt-force trauma, even when their seat belts are never buckled. When it doesn't, one often hears the invoking of "God's will" by the relatives at the funeral (again, a totally unbiblical concept). God is often cited, too, as the explanatory cause even for trivial events; however, there certainly is not the slightest Scriptural hint that providence operates in relation to a person's finding parking places in a crowded downtown at rush-hour or getting the last available motel reservation. After all, if, in the Christmas story from St. Luke's Gospel, "there was no room at the inn" for that birth, then why would anyone think...?) The Bible affirms that

"God sends the rain on the just and the unjust," a way of saying that God is impartial and is not around doing tricks just for believers. Someone wrote, "I prayed that the tornado would not take our barn; the tornado didn't listen." We can, and sometimes do, pray for miracles. But miracles, in the sense of "abracadabra," are not to be expected in our time and place, as if they were some sort of test of God's existence. Instead, they are on God's time and in God's place. Therefore, let us "learn nature."

Many of us have concluded, in fact, that the best definition of the miraculous pertains, not to singular events that suspend or violate nature's laws, but to miracles being absolutely everywhere, in and through the orderly but wondrous workings of those laws in every instant. (Darwin referenced "laws impressed upon matter by the Creator." Those who would deny the existence of a Creator must admit that they have no naturalistic explanation for the origin of those laws. They simply are.) And to knowingly, appreciatively, feelingly experience those is, I think, a reverent part of the life of faith. Peter Mathiessen writes in *The Snow Leopard* of a certain day in the white landscape of Tibet: "The sun is roaring, it fills to bursting each crystal of snow. I flush with feeling, moved beyond my comprehension, and once again, the warm tears froze upon my face. These rocks and mountains, all this matter, the snow itself, the air —the earth is ringing. All is moving, full of power, full of light."

There is amazement, too, in encountering the dark. My own experience includes using a large amateur telescope, a so-called Schmidt-Cassegrain reflector with a clock-drive to compensate for the rotation of the earth. Five decades ago, it was a major purchase for our family, not readily afforded, but worth it. Comparably priced snowmobiles are now rusting hulks in the weeds of back yards, and have been for a long time, while the telescope is still pristine. In it, the same moons of Jupiter that Galileo saw are easily visible, and so much more than he could ever have imagined: the rings of Saturn, the nebulous star clouds in the constellation Orion, remote globular clusters of a half-million stars out on the fringe of the Milky Way, and, most hauntingly, other galaxies in deep space. Some are irregular in shape; some are oval; others are immense spiral forms, each composed of hundreds of billions of stars, their far-flung arms rotating around a central axis once in perhaps 200 million years.

In 1928, Henry Beston published *The outermost House,* his chronicle of a solitary year spent at the most remote dwelling on the great beach of Cape Cod, where he came into a more intimate contact with the natural world than most will ever know. He writes:

The world today is sick to its thin blood for lack of elemental things, for the fire before the hands, for water welling from the earth, for air, for the dear earth itself underfoot. In my world of beach and dune these elemental processes lived and had their being, and under their arch moved an incomparable pageant of nature and the year.

He immersed himself in knowing the seasons, the wonders of bird migrations, and the procession of the planets overhead. And he mourned for a society that, even then, barely knew the night, living in enclosures of artificial day, and he urged:

Learn to reverence the night... for, with the banishment of night from the experience of man, there vanishes as well a religious emotion, a poetic mood, which gives depth to the adventure of humanity. ... When the great earth, abandoning day, rolls up the deeps of the heavens and the universe, a new door opens for the human spirit, and there are few so clownish that some awareness of the mystery of being does not touch them as they gaze. For a moment we have a glimpse of ourselves and of our world islanded in its stream of stars –pilgrims of mortality, voyaging between horizons across eternal seas of space and time."

In trying to imagine the size of the cosmos, we flounder, because there is nothing else with which to compare it. The entirety of it composes single system. It is, as the very word indicates, the Universe, the one-and-only, Everything. Spanning billions of light-years, it is both incomprehensibly immense and complex. The late 19th century philosopher and psychologist William James spoke of the impossibility of our being conscious of more than a tiny, tiny part: "The real world as it is given objectively at this moment is the sum total of all its beings and events now. But can we think of such a sum? Can we realize for an instant what a cross-section of all existence at a definite point of time would be, contemporaneous with millions of other events? Yet just such a collateral contemporaneity, and nothing else, is the real order of the world."

One would suppose that all of us would want to know as much as we can about this marvelous reality that is our home: this astonishing planet with a history of 4.6 billion years, where lightning is striking something like a hundred times every second and where, as it has been said, there are a thousand pounds of termites on earth for every human being, and where we are all heirs to hundreds of millions of years of the development of complex life on earth. Is it not fitting that we mere mortals should know about it and stand in awe of it all?

So, we are embedded in the largest imaginable version of the "tangled bank" contemplated by Darwin, "...clothed with plants of many kinds, with birds singing on the bushes, with various insects flitting about, and with worms crawling through the damp earth."

For many of us, the more we learn about our context in the natural world, the more unexpected does the universe appear. Science has found, again and again, from the microscopic spiral coil of DNA in the center of every cell to the black holes at the center of immense galaxies, that reality truly is "beyond our wildest dreams." In words attributed to the pioneering physicist Michael Faraday, "Nothing is too wonderful to be true." So, the universe is not merely conceptual; it exists. It is "a matter of fact," and the reaction of Princeton mathematician Edward Nelson speaks for many of us: "One of my earliest memories is a feeling of great surprise that there is anything at all. It still strikes me as amazing and, for me, this is the fundamental religious emotion. I believe in, pray to, and worship God."

Running through all of reality is evolution. The aspect of transformative change over time underlies and pervades everything. The process applies to landscapes, to the development of planets, stars, and to the universe as a whole; and, within the biosphere, it applies to every

living thing. Science fills in details, but the idea, itself, in the broadest sense, is not new. Heraclitus of ancient Greece wrote that "No one can step into the same river twice," because, in a moment, the river has moved on: it is no longer the same. But, in addition, he may have intended the further thought that, after that moment, neither is a human being exactly what he/she was before. Also, the Roman poet Ovid in *The Metamorphoses*:

Full sail, I voyage,
Over the boundless ocean, and I tell you
Nothing is permanent in all the world.
All things are fluid; every image forms,
Wandering through change. Time is itself a river
In constant movement, and the hours flow by
Like water, wave on wave, pursued, pursuing,
Forever fugitive, forever new.
That which has been, is not; that which was not
Begins to be; motion and moment always
In process of renewal...
Not even the elements are constant...
Nothing remains the same: the great renewer,
Nature, makes form from form, and, oh, believe me
That nothing ever dies....

Evolution is cosmic. As such, it is something both to reverence and to celebrate. Thus, we can affirm with Darwin those famous words at the very end of *The Origin*:

There is grandeur in this view of life, with its several powers, having been breathed by the Creator into a few forms or into one, and that, whilst the planet has gone cycling on according to the fixed laws of gravity, from so simple a beginning, endless forms most beautiful and most wonderful have been and are being evolved.



Kenneth H. Olson March 2022