

Our Planet, Our Species, Our Selves: A Liberal Perspective

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My remarks are entitled “Our Planet, Our Species, Our Selves: A Liberal Perspective.”

One connotation of the word “liberal” is, of course, a certain amount of breadth. A liberal education is broadly enlightening rather than narrowly vocational; to be liberal of mind is to be broad-minded rather than narrow-minded; and to take a liberal perspective, as I mean to do for the next few minutes, is to place things in a broad perspective rather than a narrow one.

A vivid memory from my childhood is the first time Dad took us to Chicago to watch the White Sox play a night game. Stepping from the gate into the grandstand of Comiskey Park was to step from darkness into a huge, glowing dome of light. On the floor of the dome was the light brown sand of the infield, beyond which stretched a vast sea of emerald green. My heroes—the players themselves—were far enough away to look small and slow as they moved about the field. Some very interesting facts I did not know then I would like to share with you now. Suppose we represent our Sun as a golf ball at home plate. Neptune, outermost planet of our solar system, would be way out at the home-run fence, about the size of a peppercorn. A mere twelve feet from home plate would be a poppy seed; this would be planet Earth. It appears rather small and unimportant in the Solar System. Suppose we broaden our perspective. On this same scale, to reach the nearest star, a red dwarf we call Proxima Centauri, we would have to travel far through the surrounding darkness: it would be a little red bead in New York! It would take a trillion balls—among which the red beads would probably be most common—to represent the

stars of the spiral galaxy that is our Milky Way. In galactic perspective, then, our solar system appears small and unimportant. If we attempt to visualize the distance between galaxies, terrestrial distances no longer help; we would have to switch our units to light-years. Suffice it to say that from a cosmic perspective, even our galaxy would appear small and unimportant.

So here we find ourselves, sailing along on our poppy seed, basking in energy from the glowing golf ball twelve feet away. What is our place in the scheme of life on Earth? Our closest evolutionary relatives are the chimpanzees, of which two species exist: the so-called common chimpanzee and its smaller cousin, the bonobo, sometimes called the pygmy chimpanzee. We have learned that chimpanzee genes are similar to our own, and that chimps possess much greater intelligence than we had thought. They can learn to communicate symbolically, and this has allowed us to discover that they have self-awareness. Moreover, they enjoy finger-painting and listening to music, so they must have an artistic urge. Though their emotional lives appear somewhat like ours, there are some striking differences: they have no sense of shame about their body parts or their bodily functions, and they neither laugh nor cry. They are wonderful creatures, these cousins of ours; but all things considered, we might well hesitate to count them our soul-mates.

In terms of evolutionary time, the two chimpanzee species evidently separated two or three million years ago; our line evidently separated from their line six or seven millions years ago. But life on Earth is nearly four *billion* years old. How can we place this in proper perspective? Charles Darwin suggested picturing the evolution of life as a great, ancient tree. Many of its branches have withered and died over the ages, which represent forms of life that have become extinct; but there remain a great many buds growing at the ends of living branches, which represent the species that exist today. Suppose we take Darwin's advice and picture life on

Earth as a giant oak tree that has grown and spread to a height and breadth of a hundred feet—a tree larger than any you could find on Truman’s campus. I did some calculations showing that we and our chimpanzee cousins would look like this: a doubly forked twig only a few inches long. In the history of life on Earth, then, our species appears to be young; and, like our planet, small, lonely, and unimportant.

Another memory from my childhood: When I was still in elementary school, the teacher was talking one day about Abraham Lincoln and the Civil War. Suddenly she raised a question that left a profound impression on me: Does the person make the times, or do the times make the person? Many years later in graduate school, I learned that the view that the person makes the times is sometimes called the “Great Man” theory of history. The contrary view struck me, even when a child, as probably more illuminating; it certainly seemed more interesting! How important are we, as individuals, in the grand scheme of things? To what extent are we actually at the mercy of the conditions of culture and history into which we happen to have been born and to live?

One kind of evidence we can adduce here concerns the phenomenon often referred to as independent discovery and invention. History reveals that it is not unusual for great breakthroughs to be achieved, at about the same time, by two or more people working independently of one another. In the late 17th century, for example, the fundamental ideas of calculus were arrived at independently by Isaac Newton and Gottfried Leibniz. In the mid-19th century, the theory of evolution by natural selection came together in the mind not only of Charles Darwin, but also of Alfred Russell Wallace. Given the magnitude of these examples, one is tempted to suggest that the more important the breakthrough, the less essential any particular individual is for it to be achieved. It is as if conditions reach a point at which this breakthrough

or that is bound to occur; and if one person does not do it, someone else will. Now if even great thinkers like Newton and Darwin were not all that important as individuals, where does that leave the rest of us?

Now I imagine you might want to object along some such line as this: “Look, I notice that your examples are from mathematics and science, which indeed seem to have a developmental logic of their own. But what about something like art? Surely you are not suggesting that if, for example, Vincent Van Gogh had not painted the famous series of still-lives called ‘Sunflowers,’ someone else would have done it?” Well now, I might be tempted to retort that masterpieces of art are intrinsically unique, making it unreasonable to demand examples from this realm; and to argue further that masterpieces of art, wonderful though they are, are far less *consequential* than scientific breakthroughs. We are here today, however, to celebrate the liberal arts, which of course are also known as the arts and sciences; resorting to this kind of invidious comparison scarcely would be in the spirit of the occasion!

No, I would rather simply concede that no one but Van Gogh could have painted Van Gogh’s “Sunflowers,” and move on to consider just how well this very masterwork argues for the importance of the individual as such.

Since even our chimpanzee cousins enjoy fingerpainting, it seems all but certain that the artistic urge is millions of years old. Forty thousand years ago, Europeans began painting the animals they hunted on the walls of caves. Shortly after five thousand years ago, Egyptians were painting not only animals—including the human animal—but all manner of things, including plants, on the walls of tombs. At about the same time, native North American villagers in the Mississippi Valley, around what is now Arkansas, were domesticating several crops, including

the sunflower. Twenty-five hundred years ago, the Greeks painted, among other things, plant life and floral themes on the sides of vases. They were followed by the Romans, whose wall paintings included what we today call still lives.

Plants of any kind, let alone flowers, seem seldom to have been the focus of attention in ancient painting. In 15th-century Europe, a painting *could* center on flowers—provided, that is, that the flowers were not enjoyed for their own sake, but rationalized as religiously significant. Violets, for example, symbolized the purity of the Blessed Virgin Mary. But by the 17th and 18th centuries, flower-painting positively flourished in the Netherlands, where floral still-lives were in great demand by the public—still lives not only of tulips (the national favorite, of course), but of many other flowers as well. One of the more popular, often used to symbolize faithfulness, devotion, and divine love, was none other than... you guessed it: the sunflower!

But this is not all. When Van Gogh painted *his* sunflowers between 1887 and 1889, he did so using a palette of oil pigments created by Flemish arts of the 15th century, which he applied to canvas, a surface popularized by 15th-century Italian artists in Venice, where canvas was readily available and inexpensive because large amounts were produced for use in sailing ships; and he used a brushstroke technique—called *impasto*—pioneered in the 17th century by Baroque artists including Diego Velasquez, Frans Hals, and Rembrandt van Rijn; and he worked under the immediate influence of leading French artists including Edgar Degas and Georges Seurat, whom he had met the previous year.

No doubt the unhappy and unstable Van Gogh often *felt* that he worked alone, utterly forsaken by his own kind; and in fact, art historians often characterize him just this way—as the quintessential solitary, tortured genius, working in virtual isolation from his fellow human

beings. Indeed, it is this reputation that makes him an ideal “test case,” so to speak, to make my point. For as we have just seen, Vincent Van Gogh had created neither the deep cultural foundations on which he built, nor the immediate social surroundings in which he worked. To a great extent, then, his creations were not his alone, for he had *not* worked alone. In a deep sense, not a single one of us could work truly alone even if we wanted to. To paraphrase the poet Robert Frost: We work *together*, whether we *work* together or apart. All human achievements are profoundly collective in that they depend so heavily on the efforts of those who have gone before us, and those who work around us.

It is the collective nature of human achievement that allows us to fulfill our fundamental nature, which is to be, as astronomer Carl Sagan so memorably said, “a way for the Cosmos to know itself.” We gain importance, as individuals, because we all contribute, indirectly at least, to this project. Our tiny twig of a species gains importance in virtue of having evolved the capacity—evidently rare in the Cosmos—to contribute to this mission; and our little poppy seed of a planet gains importance by being home not merely to life itself, but to a species capable of learning about the Cosmos that produced it—a species that can wonder, and learn, about planets, and species, and selves.

There is a recent television ad I like very much. It goes like this: “Humans: one day we’re coming up with the theory of relativity, the next day... not so much,” at which point we see an inattentive driver smack his SUV into his closed garage door. What I like here is how Einstein’s great theory is credited to all of us: we humans came up with it!

In conclusion, let me congratulate the initiates on your achievements as scholars here at Truman; but let me also congratulate your families and your friends, who have contributed, in

ways known and unknown, to your achievements. And let me remind you that your achievements depend also on the work of countless people before you—people who produced not only the knowledge you have acquired, but also the social institutions, including Truman himself, that have allowed you to acquire it. I would like to paraphrase the television ad as follows: “Humans: one day... not so much; the next day, we’re inventing calculus, or coming up with the theory of natural selection, or painting ‘Sunflowers,’ or... being initiated into Phi Beta Kappa”!

Finally, initiates, remember this: liberal education, understood liberally, is a lifelong process. Therefore in the end I congratulate you not so much on a *job well done* as on a *joy well begun*. Thank you!