



PUTTING MAN BEFORE DESCARTES

John Lukacs

*Human knowledge is personal and participant—
placing us at the center of the universe*

*U*n *mauvais quart d'heure*, the French say, of those painful 15 minutes when a son must tell his father that he failed in school or that he stole, or when a man thinks he now must tell his woman that he will leave her. They have to tell the truth: *a* truth.

Now, near the end of my career as a historian, I have a truth to tell. So, for 15 minutes, please bear with me.

I was still very young when I saw that historians, or indeed scholars and scientists and human beings of all kinds, are *not* objective. Many who wished to impress the world thought that they were objective. And there are still many historians and even more scientists of that kind, men with gray ice on their faces.

But isn't objectivity an ideal? No: because the purpose of human knowledge—indeed, of human life itself—is not accuracy, and not even certainty; it is understanding.

An illustration. To attempt to be objective about Hitler or Stalin is one thing; to attempt to understand them is another; and the second is not inferior to the first. Can we expect anyone to be objective about someone who did him harm? Can we expect a Jewish man to be objective about Hitler? Perhaps not. Yet we may expect him or anyone to attempt to understand. And that attempt must depend on the *how*, on the very quality of his participation, on the approach of his own mind, including at least a modicum of understanding of his own self. After all, Hitler and Stalin were human beings, so they were not entirely or essentially different from any other person now thinking about them.

History involves the knowledge of human beings of other human beings. This knowledge differs from other kinds, since human beings are the most complex organisms in the entire universe.

The ideal of objectivity is the antiseptic separation of the knower from the known. Understanding involves an approach to bring the two closer. But there is, there can be, no essential separation of the knower from the known.

We are human beings with inevitable limitations. We think in words, especially when it comes to history, which has no language of its own, no scientific terminology: we speak and write and teach history in words. Besides, words and language have their own histories. One pertinent example: four or five hundred years ago the very words *objective*, *subjective*, and *fact* meant not what they now mean or pretend to mean. Words are not finite categories but meanings—what they mean to us. They have their own histories and lives and deaths, their magical powers and limits.

Historical knowledge—indeed, any kind of human knowledge—is necessarily subjective. That is what I tended to think in my early 20s. Soon I found that I was wrong. Subjectivity is merely the obverse side of objectivism and objectivity; there is something wrong with the entire Cartesian coin, of a world divided into object and subject, because subjectivism as much as objectivism is *determinist*.

Every human being sees the world in his own way. That is inevitable but not determined. We choose not only what and how we

think but what and how we see. According to subjectivism I can think and see in only one (my) way; he in another (his) way. This is wrong, because thinking and seeing are creative acts coming from the inside, not the outside. Which is why we are responsible both for how and what we do or say as well as for how and what we think and see (or, for what we want to think and for what we want to see).

Very few people have recognized that the essence of National Socialism, including its biological racism, was something like subjectivist determinism—call it idealistic determinism or subjectivist idealism. The Jews, as Hitler once said, are a spiritual even more than a biological race. They think in their own certain way; they cannot think otherwise. Johan Huizinga, a great historian, early on saw something of this peril. Around 1933—not referring to Germany or to Hitler—he wrote that subjectivism was a great danger. (The other great danger, for him, was the increasing domination of technology.)

There were a few historians who realized the limitations, indeed, the very ideal of scientific objectivity, at least in their profession. (One of them was Charles A. Beard, who slid into subjectivism from objectivism around that very time: but, unlike Huizinga, he could not see further.) Twenty-five or 30 years later it took Edward Hallett Carr, a former Marxist, to make the academy of professional historians hear what they, probably, were getting inclined to hear. (This is how and why the history of ideas is almost always woefully incomplete: not *what* but *when* it is that people are finally willing to hear something.) In *What Is History?*, published in 1961 and still a celebrated book, Carr declared: “Before you study the history, study the historian.” Well, yes (though the reverse of that applies too: before you study the historian, study his history). But Carr’s thesis is nothing but subjectivist determinism: in his view a historian’s background, and especially his social background, virtually determines the history he will write. This is nonsense: consider the sons of rich bourgeois who chose to become Marxists, or the offspring of Marxists who chose to become neoconservatives. The crucial word is *chose*.

Besides, the subjectivist Carr could not really detach himself from the Cartesian, the objective-subjective terminology: “It does not follow that, because a mountain appears to take on different shapes from angles of vision, it has objectively no shape at all or an infinity of shapes.” But the more objective our concept of the mountain, the more abstract that mountain becomes.

A few years after Carr, the old bourgeois ideal of objectivism was falling apart. Postmodernism appeared, even though that term and the “postmodern” adjective were confusing. (Was the ideal of objectivity just another bourgeois ideal, a “modern” one?) Structuralism and its proponents, many of them French, appeared; entire academic departments of literature took them seriously, even though they were hardly more than yet another academic fad. Their essence was, and remains, not much more than subjectivism. They will not endure. What will, what must endure is the piecemeal recognition that the division of the world into objects and subjects belongs to history, as does every other human creation: that whatever realities objectivity and its practical applications contained and may still contain, they are not perennial, not always and not forever valid.

Knowledge, which is neither objective nor subjective, is always personal. Not individual: personal. The concept of the individual has been one of the essential misconceptions of political liberalism. Every human being is unique, but he does not exist alone. He is dependent on others (a human baby for much longer than the offspring of other animals); his existence is inseparable from his relations with other human beings.

But there is more to that. Our knowledge is not only personal; it is also participant. There is—yet there cannot be—a separation of the knower from the known. We must see further than this. It is not enough to recognize the impossibility (perhaps even the absurdity) of the ideal of their antiseptic, objective separation. What concerns—or should concern—us is something more than the inseparability; it is the *involvement* of the knower with the known. That this is so when it comes to the reading, researching, writing, and thinking of history should be rather obvious. Detachment from one’s passions and memories is often commendable. But detachment, too, is something different from separation; it involves the ability (issuing from one’s willingness) to achieve a stance of a longer or higher perspective. The choice for such a stance does not necessarily mean a reduction of one’s personal interest, of participation—perhaps even the contrary.

This inevitable involvement of the knower with the known exists not only in the relations of human beings with other human beings, but also in what we call “science,” man’s knowledge of physical things, of nature, of matter. I shall come to this later. Before that, a few words about the relationship of mind and matter. Did—does—matter exist independent of the human mind? It did and it does; but, without the human mind, matter’s existence is meaningless—

indeed, without the human mind, we cannot think of its existence at all. In this sense it may even be argued that mind preceded and may precede matter (or what we see and then call “matter”).

In any case, the relations of mind and matter are not simple; they are not mechanical.

What matters is the necessary and historic recognition that the human mind intrudes into causality, into the relation of causes and effects.

Causality—the how and why—has varied forms and meanings (Aristotle and St. Thomas Aquinas listed four); but for centuries the terms of mechanical causality have dominated our world and our categories of thinking. All of the practical applications of science, everything that is technical, inevitably depend on the three conditions of mechanical causality: (1) the same causes must have the same effects; (2) there must be an equivalence of causes and effects; (3) the causes must precede their effects. None of this necessarily applies to human beings, to the functioning of their minds, to their lives, and especially to their history.

Illustrations thereof. (1) Steam rising in a kettle: at a certain point, at a measurable temperature, the pressure becomes intolerable, an explosion is inevitable and determined; the lid of the kettle will fly off. But in human life the lid is thinking about itself. “Intolerable” is what it chooses not to tolerate. What is intolerable is what people do not wish—or think—to tolerate. (2) There is no equivalence of causes and effects. Suppressions, restrictions, taxes imposed by one ruler on one people at one time are not the same when imposed on other people or even on the same people at another time. It depends on *how* they think about their rulers and about themselves and *when*. (Under Hitler many Germans—the most educated people in the world at that time—thought that they were freer than they had been before.) (3) In life, in our histories, there are effects that may, at times, even precede causes. For instance the fear or anticipation that something may or may not happen may cause it to happen (a view of “a future” may cause “a present”).

In sum, mechanical causality is insufficient to understand the functioning of our minds and consequently of our lives—and even the sense and the meaning of our memories. Every human action, every human thought is something more than a reaction. (That is how and why history never repeats itself.) The human mind intrudes into and complicates the very structure of events.

This relationship, this intrusion of mind into matter, is not constant. Perhaps the evolution of human consciousness may be the only evolution there is. In this age of democracy, this intrusion of mind into matter tends to increase. That is a startling paradox, a development at the same time when the applications of mechanical causality govern the lives of mankind more than ever before.

It is arguable that the two greatest intellectual achievements of the now-ended age of 500 years have been the invention (*invention*, rather than discovery) of the scientific method and the development of historical thinking. Towering, of course, above the recognition of the latter stood and stands the recognition of the importance of science, because of the fantastic and still-increasing variety of its practical applications. Yet there is ample reason to recognize evidences of an increasing duality in our reactions to its ever more astonishing successful and successive applications.

At first (or even second) sight, the rapid increase in the variety of the technical applications of science is stunning. Most of these applications have gone beyond even the vividest imaginations of our forebears. That they are beneficial in many fields, perhaps foremost in medicine and techniques of surgery, leaves little room for doubt. That most people, including youngsters, are eager to acquire and use the increasingly complicated gadgets and machines available to them cannot be doubted either. Consider how the natural (*natural* here means instinctive but not insightful) ability to operate devices is normal for young, sometimes even very young, people who do not at all mind comparing or even imagining themselves as akin to machines, unaware as they are of the complexity and the uniqueness of human nature.

At the same time consider the increasingly passive reactions of people to the ever more and more complicated machines in their lives. Few know how their machines are built or how they actually function. (Even fewer are capable of repairing their machinery.) Inspired by them they are not. (Compare, for example, the popular enthusiasm that followed Lindbergh's first flight across the Atlantic in 1927 with the much weaker excitement that followed the astronauts' first flight to the moon almost 40 years later.) Machines may make people's physical lives easier, but they do not make their thinking easier. I am writing not about happiness or unhappiness but about thinking. It is because of thinking, because of the inevitable mental intrusion into the structure and sequence of events, that the entire scheme of mechanical causality is insufficient. Still, every one of our machines is entirely dependent on mechanical causality. Yes, we employ our minds when we use them,

but their functioning is entirely dependent on the very same causes producing the very same effects. It is because of their mechanical causality that computers are more than 250 years old—well outdated. In 1749 a French rationalist, Julien Offray de La Mettrie, wrote *Man a Machine*. That concept was new then (though perhaps even then not much more than one of those ideas whose time has come): dismiss soul or spirit; man may be a very complicated, perhaps the most complicated, machine, but a machine nevertheless. Two hundred and fifty years later there is something dull and antiquated in such a picture: a dusty and moldy model of human nature. Hence, below the surface, our present passive (and sometimes sickish and unenthusiastic) dependence on and acceptance of many machines. How much more timely is Wendell Berry's warning in 1999, exactly 250 years later: "It is easy for me to imagine that the next great division of the world will be between people who wish to live as creatures and people who wish to live as machines."

At this stage of my argumentation, someone may ask: Are these not merely the opinions of an old-fashioned humanist? A poet or even a historian of a particular kind may see the realities of the world otherwise from how (and why) a natural scientist may see them. They represent Two Cultures, a humanistic and a scientific one. That was the argument of a public intellectual and a popular scientist, C. P. (later Lord) Snow, around 1960. Readers: he was wrong. There may be dualities in our reactions, but—more important—there is increasing evidence that, ever since Descartes and others, the dual division of the world into objects and subjects, into known and knower, is no longer valid. And such evidence is not only there in the so-called humanities, but, during the general crisis at the end of the 20th century, in physics, too, involving the very study of matter.

Whether we call it uncertainty or indeterminacy or complementarity; whether we refer to quantum physics or nuclear physics or subatomic physics or particle physics, their practitioners found that the behavior of small particles (for instance, of electrons) is often considerably unpredictable, and that this kind of uncertainty is not a result of inadequately precise measurements but may be proved by experiments.

When it comes to such small particles, their observation interferes with their functioning. Because of this human participation, their complete or objective definition is not possible. They may be described (rather than defined), but description, too, is constrained by the limitations of human language. The very definitions of words such as *position* or *velocity* are necessarily indefinite, incomplete,

and variable, dependent on the moments and conditions of the observation. (So are mathematical measurements of them.)

A fundamental unit of matter is neither measurable nor ascertainable. Does such a unit really exist? Even atoms and electrons are not immutable facts. (We cannot see them. At best, we can see traces of their motions—but only with the help of machines invented by men.)

Neither are the earlier scientific distinctions between the categories of organic and inorganic matter any longer watertight.

Energy may be transformed into matter or heat or light; but energy is a potentiality. An accurate definition or a measurement of the temperature of an atom is impossible, because its very existence is only a probability.

In quantum physics, involving small particles, mechanical causality, as well as the complete separation of object from subject, of the knower from the known, cannot and does not apply.

This is a very short list of some of the more important discoveries (inventions) of quantum physics. I hope that some readers will recognize that these discoveries correspond with how we think about history—that is, with the knowledge human beings have, not of things, but of other human beings, involving the inevitable presence of participation.

But have historians preceded physicists with their wisdom? Oh no. The science of history, professional historianship, *what* historians thought and said for a long time, must deal with what actually happened. That is the closest English translation of the dictum, or at least of the desideratum, that Leopold von Ranke stated more than 140 years ago in a famous phrase: history must be written (or taught) *wie es eigentlich gewesen* (as it really happened). We ought not to criticize Ranke: at that time, for his time, he was largely right. But within his phrase there lurks an illusion of a perennial definitiveness—as in Lord Acton's claim, at the end of the 19th century, that the science of history had reached a stage when a history of the battle of Waterloo could be written that not only would be perfectly acceptable to French and British and Dutch and German historians alike, but would be unchanging, perennial, forever *fixed*. But in history, unlike in law, events and men may be tried and judged again and again. History is subject to multiple jeopardy; it is potentially revisionable.

The historian must always keep in mind the potentiality that this or that may have happened otherwise. I happen to be a beneficiary of this. The modest success of two books I wrote, *The Duel* (1990) and *Five Days in London* (2000), dealing with May, June, and July 1940, has been largely due to my description of how difficult Churchill's position was in those dramatic days and weeks—a description that is inseparable from the recognition of how easily it could have been otherwise, that is, or how close Hitler was to winning the war then and there. This is but one example, one illustration of the condition that every historical actuality includes a latent potentiality (also, that human characteristics, including mental ones, are not categories but tendencies).

History is larger than science, since science is part of history and not the other way around. First came nature, then came man, and then the science of nature. No scientists, no science.

I must summarize something about the recent history of physics. The 1920s were a so-called golden age of physics when the recognitions of quantum mechanics were born—a decade that was already chock-full with the symptoms of the general cultural and civilizational crisis of the 20th century. But after World War II, that general and profound and sickening crisis of an entire civilization, of its intellect and its arts, began to envelop physics too.

How? Why? Because physicists also are human beings, with their talents and shortcomings, with their strengths and weaknesses. During their golden age, some physicists thought seriously about what their new discoveries meant for human knowledge itself. As time went on and their reputations increased, fewer of them directed their attentions to that larger question. Werner Heisenberg was among these few. In 1955, 30 years after his sudden pioneer formulation of the realities of quantum physics, and after the revolutionary and dramatic events of World War II, Heisenberg delivered the Gifford Lectures, summarizing what this new physics meant to our knowledge of the world. Some of his sentences were memorable. Among other things he stated that the scientific method has become its own limitation, since science by its intervention alters the objects of its investigations, “methods and objects can no longer be separated.” And: “The object of research is no longer nature itself, but man's investigation of nature.” Note the two words that appear in these two separate statements: *no longer*.

Yet there were and are very few scientists who agreed with or were interested in Heisenberg's epistemological statements during the last 20 years of his life. And Heisenberg too was moving, as were

most other physicists, to seek a mathematical, a formulaic solution to the problem of physical knowledge, in pursuit of what is called a Unified Theory of Matter (or, by some, a Theory of Everything). Another quarter century later, a number of physicists began to encompass absurdities. The decline of physics began.

All of this happened during and after three-quarters of a century when physicists, inventing and dependent on more and more powerful machines, have found more and more smaller and smaller particles of matter, affixing them with all kinds of names. Until now, well into the 21st century, it is (or should be) more and more likely that not only A Basic Theory of Everything but also the smallest Basic Unit of Matter will and can never be found. Why? Because these particles are produced by scientists, human beings themselves.

Every piece of matter—just as every number—is endlessly, infinitely divisible because of the human mind. Some scientists will admit this. Others won't.

What science amounts to is a probabilistic kind of knowledge with its own limits, because of the limitations of the human mind, including the mental operations and the personal character of scientists themselves, which could range from sublime to fallible. There is only one kind of knowledge, human knowledge, with the inevitability of its participation, with the inevitable relationship of the knower to the known, of what and how and why and when a man knows and wishes to know.

This has always been so—even as man's understanding of it has varied. But now, in the 21st century, at the end of the modern age, something new, something unprecedented has come about. For the first time since Adam and Eve, for the first time in the history of mankind, men have acquired the power to destroy much of the earth and much of mankind, potentially even most of it.

At the beginning of the modern age, some five centuries ago, Bacon wrote: "Knowledge is power." Near the end of this age, we know, or ought to know, that the increase of power—including mental power—tends to corrupt.

Until now the great earth-shattering catastrophes—earthquakes, floods, firestorms, pests, plagues, epidemics—came from the outside. Now the potential dangers are coming from the inside: nuclear explosions, global warming, new kinds of contaminations, pestilences produced by mankind itself (for instance, genetic engi-

neering). All such dangers come from men's increasing knowledge—or, rather, from his increasing interference with elements of nature. There now may be a shift from the potential dangers of material technology to biotechnology.

Of course a danger is a potentiality, not an actuality. Of course some of these developments may not happen. The road to hell may be paved with good intentions, but the road to heaven may be paved with bad intentions that have not matured into acts. That is our saving grace, our hope. But we must recognize that the source of the new and enormous danger is not outside but inside this world, inside the minds of men, including scientists and those who support and cheer them on.

We must rethink the very idea and meaning of “progress.”

And now a last step: We must recognize, contrary to all accepted ideas, that we and our earth are at the center of our universe. We did not create the universe, but the universe is our invention, and it is, as are all human and mental inventions, time-bound, relative, and potentially fallible.

Because of this recognition of the human limitations of theories, indeed, of knowledge, this assertion of our centrality—in other words, of a new, rather than renewed, anthropocentric and geocentric view of the universe—is not arrogant or stupid. To the contrary: it is anxious and modest. Arrogance and stupidity, or at best shortsightedness, are the conditions of those who state that what human beings have figured out (most of these figurations occurring during the past 500 years, a very short period in the history of mankind!) that water is H₂O, that there cannot be speed greater than 186,262 mps, that $e = mc^2$, etc., etc., that these scientific and mathematical formulas are absolute and eternal truths, everywhere and at any time in the universe, trillions of years ago as well as trillions of years in the future; that mathematics and geometry preceded the existence of our world—that these are eternally valid facts or truths even before the universe existed and even if and when our world or, indeed, the universe will cease to exist.

No. The known and visible and measurable conditions of the universe are not *anterior* but *consequent* to our existence and to our consciousness. The universe is such as it is because in the center of it there exist conscious and participant human beings who can see it, explore it, study it. (For those readers who believe in God: the world and this earth were created by Him for the existence and consciousness of human beings.) This insistence on the centrality

and uniqueness of human beings is a statement not of arrogance but of humility. It is yet another recognition of the inevitable limitations of mankind.

I ask my readers to hear my voice. It is an appeal to think—yes, at a certain stage of history. I can only hope that for some people the peal may ring with at least a faint echo of truth. It is an appeal to the common sense of my readers.

When I, a frail and fallible man, say that every morning the sun comes up in the east and goes down in the west, I am not lying. I do not say that a Copernican or post-Copernican astronomer stating the opposite, that the earth goes around the sun, is lying. There is determinable, provable accuracy in his assertions. But my commonsense experience about the sun and the earth is both prior to and more basic than any astronomer's formula.

Keep in mind that all prevalent scientific concepts of matter, and of the universe, are models. A model is man-made, dependent on its inventor. A model cannot, and must not, be mistaken for the world.


And now there exists an additional, and very significant, evidence of our central situation in the universe. Five centuries ago, the Copernican/Keplerian/Galilean/Cartesian/Newtonian discovery—a real discovery, a real invention, a calculable and demonstrable and provable one—removed us and the earth from the center of the universe (often with good intentions). Thereafter, with the growth of scientism, and especially with the construction of ever more powerful instruments, among them telescopes (instruments separating ourselves from what we can see with our naked eyes—but, of course, the human eye is never really “naked”), this movement led to our and to our earth having become less than a speck of dust at the rim of an enormous dustbin of a universe, with the solar system itself being nothing more than one tiniest whirl among innumerable galaxies. But the physicists' (perhaps especially Niels Bohr's) recognition that the human observer cannot be separated from things he observes (especially when it comes to the smallest components of matter) reverses this. We and the earth on and in which we live are again at the center of the universe—a universe that is, unavoidably, an anthropocentric and geocentric one.

This is something other than the returning movement of a pendulum. History (and our knowledge of the world) swings back, but not along the arc where it once was. Because of our present historical and mental condition, we must recognize, and proceed from a chastened view of ourselves, of our situation, at the center of our

universe. For our universe is not more or less than *our* universe. That has been so since Adam and Eve, including Ptolemy, Copernicus, Galileo, Newton, Einstein, Heisenberg, and my own dual, because human (opinionated as well as humble), self.

Our thinking of the world, our imagination (and we imagine and see together) anthropomorphizes and humanizes everything, even inanimate things, just as our exploration of the universe is inevitably geocentric. “Know Thyself” is the necessary fundament of our understanding of other human beings, but we can never go wholly outside of ourselves, just as we can never go outside the universe to see it.

Our consciousness, our central situation in space, cannot be separated from our consciousness of time. Does it not, for example, behoove Christian believers to think that the coming of Christ to this earth may have been the central event of the universe, that the most consequential event in the entire universe occurred here, on this earth 2,000 years ago? Has the Son of God visited this earth during a tour of stars and planets, making a spectacular command performance for different audiences, arriving from some other place and—perhaps—going off to some other place?

And only 2,000 years ago. The arguments of creationism against evolutionism entirely miss this essential matter. The language of those creationists and anti-Darwinists who proclaim the existence of an Intelligent Design is ludicrous: it reduces God to a role model of a rocket scientist or of a brilliant computer programmer. The matter is the unavoidable contradiction not between Evolution and Creation but between evolution and history. History, because in the entire universe we are the only historical beings. Our lives are not automatic; we are responsible for what we do, say, and think. The coming of Darwinism was historical; it appeared at a time of unquestioned progress. But its essence was, and remains, antihistorical. It elongated the presence of mankind to an ever-increasing extent, by now stretching the first appearance of man on this earth to more than a million years—implying that consequently there may be something like another million years to come for us. Ought we not to question this kind of progressive optimism, especially at a time when men are capable of altering nature here and there and of destroying much of the world, including many of themselves? 

From Exhortation, The American Scholar - Winter 2009

John Adalbert Lukacs, born in 1924 is a Hungarian-born American historian who has written more than twenty-five books, including *Five Days in London, May 1940* and *A New Republic*. He was a professor of history at Chestnut Hill College (where he succeeded Erik von Kuehnelt-Leddihn) from 1947 to 1994, and the chair of that history department from 1947 to 1974. He has served as a visiting professor at Johns Hopkins University, Columbia University, Princeton University, La Salle University, and at the Eötvös Loránd University.

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THE GREAT IDEAS ONLINE

published weekly for its members by the

CENTER FOR THE STUDY OF THE GREAT IDEAS

Founded in 1990 by Mortimer J. Adler & Max Weismann

Max Weismann, Publisher and Editor

Ken Dzugan, Senior Fellow and Archivist

A not-for-profit (501)(c)(3) educational organization.

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