IV

The sovereign personality

So far, we have indicated some of the leading facts which show all intelligent men and women that scientific and technological progress is the essential characteristic which distinguishes the economy of the successful society from the relatively inferior, failing culture.

In the author's recently published short book, *In Defense of Common Sense*,[1] the reader will find the required elementary definition of the term *creative*. That book makes clear the difference between deductive argument—the lower order of rational thought—and creative mental activity.

The discovery of a brand new, valid scientific conception is the expression of a process which, by its very nature, occurs entirely and uniquely within the mind of an individual person. No matter how numerous the external, social influences participating in developing that person's creative-mental potentials, the generation of a new concept is a process which occurs exclusively within the mind of that thinking person. As we have already emphasized, the process of generation of that conception is therefore a *sovereign* process.

These two conceptions, *the role of scientific and technological progress,* and the fact that *each creative mental act is a sovereign process of an individual personality,* are the essence of all economic science. Such an economic science is in a unique form of agreement with Christian principles. Moreover, economic science was developed, in fact, by Christianity; furthermore, the evidence is that perhaps economic science could not have been developed except by Christianity. The essence of this connection is expressed by the *Filioque* of the Latin creed; only Christianity, through the view of Jesus Christ reflected in this feature of that creed, organizes society implicitly according to the principle of the sovereignty of the human individual, defined in the way we have defined it here.

When we hear ourselves speaking solemnly words and phrases such as *survival, national interest, individual rights, human rights, equality, freedom,* and so forth, what do we really mean?

Given the foregoing outline of the matter, it should be clear, that the essential self-interest of the individual person is the self-interest implicitly associated with this notion of "sovereign creative process" of the individual personality. We now explore, summarily, step by step, the way in which such essential self-interest is adduced.

Firstly, since we are each mortal, and thus must die, our highest self-interest is associated with the best of our life's productions, which we leave after us. This donation which we make to our posterity presumes that there will be a posterity to receive the gift. These reflections guide us toward the understanding which we should be seeking here and now.

Think of the productions we might so bequeath. Begin with the most obvious of the implied queries.

Can this production be an object?

Suppose a man and his wife take a poor piece of wild or depleted land; suppose that this pair is raising a family there,

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The late Dr. Robert Moon, a nuclear physicist, instructs children in a project to reproduce crucial experiments in electromagnetism by André Marie Ampère, at a summer camp in Virginia in 1986.

and develop that poor patch of soil into a fecund farm. Suppose an architect designs a city, better than most in utility and aesthetical merits, which may endure to mankind's admiring advantage for several thousand years to come. Are these, or other worthy *objects, in and of themselves as objects,* the kinds of production we wish to bequeath to our posterity?

It is good to provide our immediate posterity with useful objects; but no object could embody, merely as an object, the quality of almost timeless, virtually inexhaustible durability respecting its benefits to future generations. We ought to desire, that our brief, mortal existence might contribute something of virtually timeless benefit to future generations.

This matter is examined rigorously in *In Defense of Common Sense*[2] to the following effect.

Any *object* we might fashion may crumble, or become relatively useless by virtue of technological attrition.[3] In contrast, no valid scientific discovery of today can ever be rendered as having been historically unnecessary. All valid scientific discoveries will be superseded by more valid ones; but, nonetheless, each is the necessary foundation for each and all of its successors; in the latter fashion it enjoys a splendid immortality in the whole of human existence.

In this sense, valid scientific discovery of a more truthful comprehension of natural law, typifies the immortal fruit of a mortal life. In this sense, to contribute, or even merely to service such a discovery, typifies, by reflection, what is truly the essential self-interest of any person. It is only a reflection; it is not yet an adequate representation of the true, deeper self-interest; but, this reflection points our thinking along the right pathway.

So far, here, we have said implicitly, that a person is expressing his or her self-interest as an individual human personality, only as he or she is engaged in activity which employs the same, sovereign, creative process of powers of reason which we associate most readily with the generation, transmission, and efficient assimilation of valid forms of fundamental scientific discovery.

That argument implies, in its turn, that the only true self-interest of the human personality is to express, and also defend, one's own human nature. Since mankind is set apart from, and above the beasts, solely by the person's sovereign potential for creative reason, only the individual's expression and defense of the supremacy of such creative reason is a truly self-interested action by a member of the human species.

For pedagogical and kindred reasons, we have considered here so far only one among the expressions of creative reason, those kinds of valid, fundamental physical scientific discoveries often termed both "crucial" and "revolutionary." We

Johannes Kepler (1571-1630), the great astrophysicist and geometer. Among his most durable contributions to scientific progress, were problems he posed for solution by his successors.

do not intend to exclude, or disregard, other expressions of creative reason. We are implying that, whatever is true for the case of scientific discovery, is also true, to kindred effect, for each and all other individuals' expressions of creative reason. For that reason, it is permitted to present our case for economic science as we do here initially, limiting our attention to the implications associated with valid forms of fundamental scientific discovery.

The achievement of a valid revolutionary discovery in physical science yields implicitly an array of useful objects. These objects may be judged "useful," only in the degree that, by class, they elevate significantly the productive powers of our species, and thus tend to increase our species' self-reproductive power. That defines the notion of "usefulness" of the object generated, as a by-product of creative reason's action.

Consider an outstanding example. The first comprehensive mathematical physics is that of Johannes Kepler.[4] In connection with Kepler's work of founding a comprehensive mathematical physics, sundry instruments were generated as by-products of his creative reasoning. This included the first mechanical computer.

The weight of Kepler's influence lies in the success of the method by means of which he founded the first comprehensive mathematical physics. This is said in the sense, that we might overlook all of the useful objects generated then as by-products of this work, without diminishing thereby the enduring historical importance, and continuing usefulness of the discoveries.

To the present date, although improvements in the secondary features of Kepler's solar astrophysics are necessary, the underlying conception of Kepler's design remains essentially competent, whereas the Newtonian and other proposed alternatives of the past are all discredited by means of crucial experimental evidence.

Look at the pre-history of the digital computer.

Kepler designed, built, and used the first mechanical calculator. The same principle was central to the later design, and construction, by Blaise Pascal. Kepler and Pascal were directly forerunners of Gottfried Leibniz's development of the mechanical calculator. The essential features of the modern electronic digital computer are nothing better than an application of Leibniz's principles for mechanical devices.

It is also illustrative of the same argument, that two of Kepler's most durable contributions to scientific progress were problems he posed for solutions by his successors: the development of the differential calculus, and the solution of elliptic functions. Pascal contributed to establishing a Keplerian differential calculus, followed by Leibniz, whose first successful discovery of such a calculus was completed by 1676.[5] The mastery of elliptic functions was effected by Carl Gauss et al. during the first half of the nineteenth century, more than 200 years after Kepler had posed this challenge.

Today, more than 350 years since Kepler's death, Kepler's method for astrophysics has been proven also crucial for correction of the common failings of quantum mechanics respecting the atomic nucleus.[6]

Any valid "revolutionary" discovery in natural philosophy does much more than correct deep errors of contemporary popular textbook opinion. Each valid such discovery increases the rigor and creative power of the method available for effecting new, greater "revolutionary" discoveries. This point is made clear by imagining a proper form of secondary-school and university curricula, from which that abomination known as the course textbook is outlawed.

In physical science, as in geometry, too, the student masters the comprehension of the subject by reliving, as nearly as possible, the mental experience of the original discovery by the original discoverers. In that approach, a collection of original sources replaces the course textbook. The original crucial experiments are relived by the student; and improved, better experimental versions of the same crucial hypotheses are also scrutinized.[7]

Most important, physics discoveries are to be accomplished by aid of recognizing a faulty assumption imbedded historically in the supposed proof of a hallowed truism of contemporary professional certainties. A grounding in crucial historical source materials, is obviously the virtually indispensable foundation for scientific rigor.

So, the creative physicist will be forever, periodically, reexamining the work of Kepler and Kepler's predecessors, again and again; in this, and kindred Socratic enterprises, the foundations of coming scientific revolutions are being established, reaching so the indefinitely distant horizons of the future.

Thus, the essence of the scientist's true self-interest is that which he contributes, as sovereign creative activity, to furthering the endlessly continuing process of fundamental scientific progress. To restate this same point: The most essential contribution which the scientific discoverer may make, is less a particular scientific discovery, than an improvement of the known principles by means of which subsequent generations effect entire new generations of valid, fundamental scientific discoveries. In this way, the mortal sovereign person becomes the necessary individual mortal existence, who has enriched the power of the human species as a whole, for all time to come.

The way in which such a mortal life benefits present and future generations should be more readily obvious. To consider, next, the benefit to the past touches the subject of our inquiry more profoundly.

Let us return our attention to the two cited challenges which Kepler left to his successors: the development of a differential calculus, as accomplished by Leibniz; and the general solution of elliptic functions, solved essentially by Gauss et al. Did not Leibniz and Gauss benefit Kepler in a readily intelligible way? Does my work die with me, or is it reinvigorated to continued, efficient life, by the work of my successors? Kepler clearly sought a Leibniz, a Gauss: In good time, each responded to Kepler.

If and when relations of individuals across time, in the future and into the past, are seen in these terms, mortality is cheated of its fearfulness. For this author, for example, some such scientific figures as the fifteenth-century Nicolaus of Cusa and eighteenth-century Leibniz are, in many ways, efficiently as if living contemporaries, as are unknown figures from the distant future to whom this author is also morally accountable.

Science, thus, gives an *isochronic* quality to the linking of the work of diverse persons across even great expanses of past and future time. The same is true in matters of classical forms of art, and in all other matters truly important, by their nature, to the human species as a whole.

How shall we define here the purpose of this development to which the sovereign creative powers of the mortal individual contribute so *transfinitely?* The answer can be summed up on two successive levels.

On the first level, it is a physical advantage. The continued existence of the human species depends upon technological progress. We have already considered an illustration of that point. Technological progress increases the per capita productive powers of society; at the same time, technological progress transforms and improves nature. That improvement is essential, or else human depletion of fixed varieties of so-called "natural resources" would doom us.

On the second, higher level, *it is a spiritual advantage.* It is the development of the quality of man by means of which the twofold, subsumed, physical gain is effected.

The net effect of a valid fundamental sort of scientific discovery, is to increase the sovereign creative power of virtually everyone who assimilates that discovery. Thus, through fostering the development and expression of individual sovereign creative powers, the net result is the self-increase of the sovereign creative powers of the members of the human species as a whole.

Let us, next, re-examine what we have said thus far, introducing a slight, but crucial change in our choice of standpoint.

Notes

1. Lyndon H. LaRouche, Jr., *In Defense of Common Sense,* (Washington: Schiller Institute, 1989).

2. *Ibid.*

3. The term *technological attrition* refers to the depreciation or devaluation through relative, or marginal obsolescence, of tools, equipment, and so forth, rendered less competitive in quality through being superseded by more technologically advanced means. This is associated with a relative lowering of the value of labor using the older equipment, relative to labor using the new.

4. It is a simple, literal fact of history, that Johannes Kepler was the first person to establish a comprehensive mathematical physics. In fact, as is shown in other locations by various authors, including the present one, Newton was by no means the discoverer of the law of gravity as given; what is attributed to Newton is simply an inversion of the determination of a universal gravitational constant derived directly from an algebraic manipulation of Kepler's famous three universal laws.

5. Consulting the original manuscripts in the Hanover Leibniz Archive establishes not only that Leibniz had completed the work leading to a submission of the first published discovery of the differential calculus, submitted to a Paris publisher in 1676, but that at that time, prior to that date of publication, he had also made many more advanced discoveries in this connection, discoveries which were attributed ordinarily to decades later in time by Leibniz or others.

This is to be compared with the examination of the newly discovered papers of Newton, during the course of the present, twentieth century, in which it is discovered that Newton had done no significant work toward any calculus, but had instead concentrated most of his laboratory and related activity on experiments in black magic. See Carol White, "Refuting the Second Law," *Fusion,* Vol. 8, No. 1, January-February 1986, p. 63.

6. The hypothetical structure of the atomic nucleus as developed by the late Dr. Robert J. Moon, professor emeritus at the University of Chicago and veteran of the Manhattan Project, is presented in Laurence Hecht, "The Geometric Basis for the Periodic Table of the Elements," (*21st Century Science & Technology,* Vol. 1, No. 2, May-June 1988). Moon's model is explicitly derived from Keplerian considerations of the structure of space-time and the necessity for expression of the Golden Section, or "Divine Proportion," as he always referred to it.

7. The popularity of both the textbook and of the textbook-based classroom course has tended to distract modern opinion's attention away from the fact that earlier, prior to the development of the textbook, a superior form of education had been used, in which the student had to re-work original experiments with the guidance of original literary sources, and thus relive as closely as possible the mental experience of the original discovery.