Math and Matter

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The accompanying report features three included conceptions which most students of mathematics and mathematical-physics subjects will find extremely disturbing, even perhaps violently so: 1) the notion of a negative form of mathematical definition of "matter;" 2) the notion of a physical characteristic of the action of human cognition, also negatively defined; 3) the notion of a functional interconnection between the two, also negatively defined. What I have said on those matters stands on the basis of the evidence which I have indicated either in that report, or in related, referenced other locations. All that need be done here, in this attached memorandum, is to soften the intellectual blows I have delivered on these accounts. To that purpose, I call attention to what ought to be any literate person's familiarity with certain arguments by Leibniz.

In this connection, it should be stated once again, that the kernel of all my fundamental contributions to a science of physical economy, is repesented by five essential conceptions, of which three are elaborations of concepts which I first adopted, during my adolescence, from study of some of the writings of Gottfried Leibniz, and another I adopted later, in 1952, chiefly from the work of Bernhard Riemann. The fifth conception, the notion of a characteristic economic principle of oligarchism, I developed separately, during the 1950s, from my study of the physical-economic roots of the recurring degeneration common to both the Roman Empire and all among

the known pre-Hellenistic cultures of Mesopotamia.¹

For the purpose of identifying the original prompting on those topics which the reader of the accompanying report might find most disturbing, the subject-matters of matter, cognition, and the functional relationship between the two, my relevant adolescent readings from Leibniz were English translations of his **Theodicy**, the Leibniz-Clarke-Newton correspondence, and the writing posthumously published as **The Monadology**. The included aspect of Leibniz's work on which I put emphasis here, is his extensive attention to the problems posed under under such rubrics as "clear and distinct ideas."

The central feature of those original discoveries which I developed toward the beginning of the 1950s, was my method for representing actual antientropy, as opposed to Professor Norbert Wiener's fraudulent, reductionist notion of "negative entropy." My solution to the problem was to pose anti-entropy in physical-economic terms; the solution was my now familiar, paradoxical form of simultaneous inequalities. Similarly, my defining the sovereign individual act of cognition, in opposition to Immanuel Kant's denial of cognition's existence, relies upon use of a paradoxical formulation of a type related to that used to depict anti-entropy. It should be obvious to one familiar with Leibniz's work, that both of these discoveries of mine from that period,

echoed Leibniz's notion of a *monadology*, and still do today.

My choice of these two paradoxical forms of expression, for anti-entropy and cognition, respectively, was prompted by my attention to the relevance of the Classical definition of *metaphor* in poetry and drama. My argument during the late 1940s and early 1950s was, and remains, that that act of cognition which is responsible for generating a crucial validation of a newly discovered principle of experimental physical science, is of the same type of act of cognition as that which generates a valid solution to a Classical artistic paradox in poetry, drama, or music.

On the basis of my pre-1952 elaboration of these conceptions respecting anti-entropy, cognition, and Classical art, in 1952 I came to recognize a related implication in Bernard Riemann's 1854 habilitation dissertation.

It followed, from that combination of discoveries, up through 1952, that I adopted the notion of functional anti-entropy as the basis for any valid notion of efficient physical existence. The correlated notion, is the fact that the effectiveness of progress in validated discoveries of physical principle is shown, as a matter of crucial-experimental proof, to be a form of physical action upon the multiply-connected manifold which is the domain of what we call "matter."

Against such evidence, the reductionists have no argument but either lying, an outburst of hysterics, or, a combination of both. As the once-famous Dale Carnegie et al. suggested, the road to success as a salesman or conniving back-stabber in the corporate rat-race, is to learn how to lie a lot while wearing a smile on your face. The heart of the matter is: Mastering the challenge posed by the issue of clear and distinct ideas, is not easy; for reductionists, such mastery is impossible.

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^{1.} One of the products of that study of oligarchism was circulated privately, in 1962, under the title of **The Origin of Caste**. This reflected my attention to the functional roots of oligarchic bureaucratic caste-formations in such diverse expressions as the ancient Mesopotamia priest-castes, the Roman imperial bureaucracy, the corporate bureaucratic phenomenon of the U.S.A. during the 1950s and early 1960s, and related caste-formations in socialist organizations. The Criminal Division of the U.S. Department of Justice today, is typical of an oligarchic bureaucracy.

^{2.} After years of quarrelling with reductionists over what the term "negative entropy" ought to be signified to mean, I found it simpler to use the term "anti-entropy" instead.