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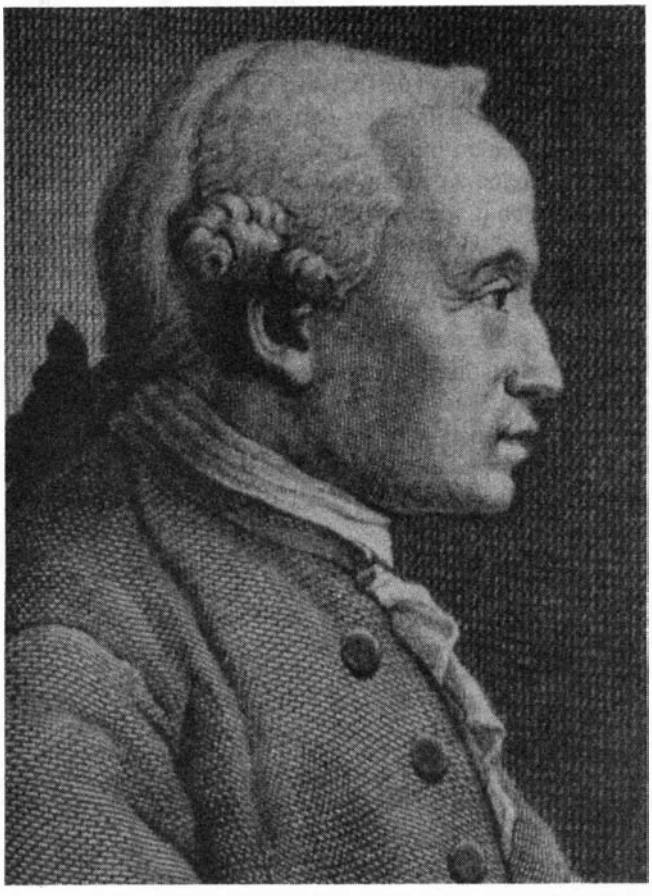
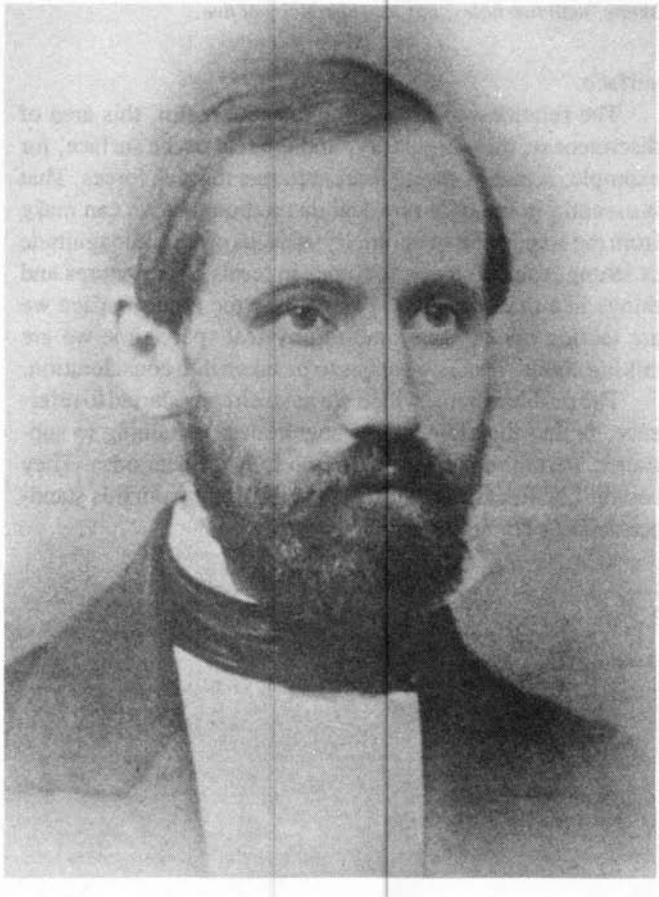
Matter is not simple

Up to now, we have indicated in general outline the scientific method flowing from our development of the *Monadology*. This can be contrasted, in all cases, with the Kant-Leibniz controversy on the *Monadology*, and, also, compared with what we have referenced earlier on Euler's error on infinitesimal division. This is not to say that we start with the idea of a predetermined discrete existence.

What we are referencing, geometrically, in these monads, are zones of what appear to be negative curvature. That is, imposing negative curvature upon the surface of a Riemannian sphere, projectively, would be the kind of image that corresponds with these discrete existences. That is, they are not discrete in the sense that the deductive method teaches discreteness; rather, they are discrete in the sense of generated singularities which take the nature of these negative curvature indentations, so to speak, in a Riemannian spherical





Immanuel Kant (1724-1804), left; Bernhard Riemann (1826-66), right.

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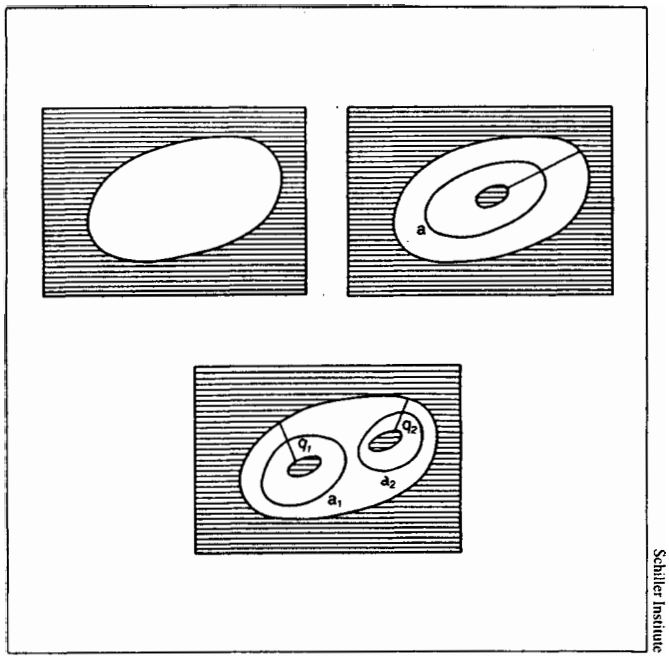

Schiller Institute

The Riemann Surface Function, showing multiply-connected surfaces. The topology of the projection of a sphere (constant positive curvature) has simply connectivity; there are no singularities (holes), only poles. The projection of a torus, with its center hole, is triply connected, and the projection of a pretzel shape, with two holes, has a connectivity of five.

surface.

The relationship among the discrete realm, this area of discreteness, this singularity, and the rest of the surface, for example, is that of strong forces relative to weak forces. That is essentially the only physical distinction that we can make from the standpoint of geometry: various orders of magnitude of strong, relative to weak forces in terms of curvatures and things like that. So, that is essentially the kind of space we are talking about, the standard physical space-time we are talking about. That is what has to be taken into consideration.

The problem here, which we have already started to reference, is that the elementary magnitudes, pertaining to substance, pertaining to action, are no longer linear ones. They couldn't be linear in any case. Just look at it from this standpoint: They are not linear.

That is, mass is not a linear magnitude, nothing else is a linear magnitude. Interaction is not a linear magnitude. There are no linear magnitudes, linear expressions in the system. We might be able to approximate some of the nonlinear ones, under special conditions, by linear approximations; but that does not mean, by virtue of approximation, that the elementary is simple. As we eliminate, by necessity, the notion of an elementarity as being of the quality of simple, we reject the simple.

We must reject the simple in respect to the notion of substance, to the notion of discrete existence; we must reject the notion of the simple in terms of the so-called space-time relations, of interaction in space-time. So, *simple* is not a quality which we allow in our universe; we cannot allow it, for reasons already given.

That which is seemingly most simple, even if it does or does not, in itself, act as creative reason does on the universal, is in a similar relationship to the universal (as in the case of lesser monads, or the lesser lesser monads), if you choose. That is, the fact that a singularity exists, and that it does not act in a certain manner, or under certain circumstances, or under all circumstances, is itself the act of omission of that kind of action which we would expect from a creative magnitude, such as the creative human personality.

So that, in all cases in dealing with pair-wise, or other, more localized interaction, we are dealing with something whose complexity is defined, implicitly, by the relationship of creative reason and the individual, as a process, to universality. We are looking at the pair-wise relationship in terms of its own relationship to that universality: the pair's action, or lack of action, upon that universality. Or, what they must do to act upon it, the condition they must satisfy to act upon it, or the condition they must satisfy not to act upon it, that is, not to alter it in some sense.

Since the primary action in the universe as a whole is itself nonlinear, elementary, but not simple, thus, the conditions which these relationships, or local relationships must satisfy, in description, and ought to be consistent, be part of the universe, are functionally defined in the same nonlinear way as we define the relationship between the higher-ordered monad, the creative individual, creative action, and the universe as a whole.