

WORLD WITHOUT A LOGOS

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When the new scientific method destroyed the idea of a universe arranged in relation to an ultimate end, it invalidated at the same time a hierarchical social system in which the pursuits and aspirations of the individual were predetermined by final causes. The new science, "neutral" as it was, ignored an organization of life which deprived the large majority of mankind of its freedom. In the course of its effort to establish the physical and mathematical structure of the universe, it had also to disclaim any concern for the concrete individual, the perceptible "body." Such a process of abstraction was fully validated by its result—a logical system of propositions governing the methodical utilization and transformation of nature, with the aim of turning it into a universe controlled by human power.

Reality being reduced—or virtually reduced—to physical-mathematical structures, "truth" is determined solely in relation to what can be measured and calculated, and to propositions expressing such conditions. Such a reality defines itself according to laws of its own (even if these laws be only statistical laws). Man may understand them, act upon them, and be concerned by them, even though they appear to have nothing in common with the laws of his individual or social existence; they involve him only insofar as he himself is pure physical-biological matter. In all his other aspects, man finds himself eliminated from nature, or rather, the reality acknowledged and encompassed of any individual and social existence.

One may possibly be justified in talking about the "metaphysical foundations" of modern science. Thus, Alexandre Koyré has recently put strong emphasis upon the ontological, nonempirical aspects of Galilean science. The pythagorean, platonic, and aristotelian tradition remained powerful enough, at least until Newton, to provide scientific method with a "philosophy." It can be said that the very notion of universal physical laws, susceptible of being unified, still retains, at the outset, the idea of finality:

finality, however, which tends to become increasingly empty, a finality belonging to the realm of pure calculability and predictability, which carries no *telos* in itself, nor any structure tending to a *telos*. The density, the substantial opacity of "objects," all objectivity, seem to evaporate. There is no nature or human reality left to represent a substantial cosmos. In the advanced scientific method, thought itself seems to be purified of the objects that stand in its way: they, in turn, find admittance only in the form of "convenient agents," of "patterns" and "invariants," of "obsolete cultural assumptions." All objects of thought and practice are now conceived and "projected" in terms of organization: beyond any palpable certainty, truth is a question of convention, of efficacy, of "internal coherence"; and basic experience is no longer concrete experience, or social practice taken as a whole, but administrative practice organized by technology.

Such an evolution reflects the transformation of the natural world into a technical world. Technology, strictly speaking, has taken the place of ontology. The new mode of thought has cancelled the ontological tradition.

It might appear, at first glance, that the "denaturing" of reality is masked by the terrible energy the technical world displays in resisting the will and thought of the individual; that the sheer material weight man finds himself called to act upon, and which acts upon him, has never been so overwhelming. But that weight is the weight of man himself. It is through man's own practice that the technical world has crystallized into a "second nature," *schlechte Unmittelbarkeit* (pernicious immediacy), more hostile perhaps and more destructive than initial nature, pretechnical nature. Technical reality has no substance other than that of the subject. Hence it appears to be deprived of its logos, or rather its logos appears to be deprived of all reality, a logical form without any substance. Contemporary positivism, semantics, symbolic logic, linguistic analysis, define and refine the universe of speech, for the use of technicians, specialists, and experts who calculate, adjust, and assemble without ever having to ask themselves either for whom, or for what; their only

concern being to make things work, not to assign a goal to that process. Science and technology, in themselves, have no values. They are "neutral" with regard to all values and goals that, from the outside, may be assigned to them. Such a neutrality is invested, however, with a positive meaning: reality in itself is a value, evaluated precisely insofar as it is conceived as pure form (or pure matter: in this context, both terms, opposed elsewhere, converge) that lends itself to all purposes. Being then assumes the ontological character of instrumentality: its very structure makes it amenable to all uses and all alterations.

But the question may be raised as to whether neutrality toward all values is truly a scientific notion, that is, a requirement inherent in the very structure of modern science. I am inclined to think that the neutrality of technique (which is but one manifestation of the neutrality of science) is in itself a political concept, and that industrial society has developed technique in a sense that is contrary to its true meaning. Technics, considered as a historical process, is endowed with an internal meaning, a meaning of its own: it projects instrumentality as a means of freeing man from toil and anxiety, of turning his struggle for life into a more peaceful process. Therein lies the final cause of the methodical transformation of the world involved in technics. But technique, in the process of being developed as "pure" instrumentality, has disregarded this final cause, which no longer stands as the aim of technological development. Hence, pure instrumentality, without finality, has become a universal means of domination. Technics does indeed involve domination: mastery of nature insofar as it is a hostile, violent, and destructive force; mastery of man to the extent that he is a part of that nature. Industrial society exercises, and rightfully so, this technological domination; but insofar as society tends to disregard the final cause of technology, technique in itself perpetuates misery, violence, and destruction.