

**Dominique Bouchet - Ph.D. Seminar UTRGV - February 12, 2021**

**CASTORIADIS, Cornelius: “Modern science and philosophical interrogation”** in Crossroads in the labyrinth, (Translated from the French by Kate Soper and Martin H. Ryle); The MIT Press; Cambridge Massachusetts. 1984. Pp. 145-226.

What is the main point of this text?

Which part of this text did you find most challenging, interesting, relevant for your own education?

When do you think this text was written?

Did you know the meaning of the words below, and if you did not, did you check their meaning and where?	What is your understanding of the concepts below?
Apodictic Concatenation Diachronic Epistemological Geocentric Psychical Somatic Synchronic	Desire Health Ideology Knowledge Metaphysics Nature Perceptions Science Theory Work

What do you know of Gödel and Tarski theorems and why is it important for scientists and philosophers to know them?

Why is sociology and philosophy viewed by many economists with suspicion.

How do marketing and management as you experienced them in your studies make use of different fields of knowledge?

Who said: “it is the theory which first decides upon what is observable”? What does that mean for your research?

What does it mean that “Every phenomenon is an *interphenomenon*”?

Is it impossible to present science as a *cumulative* process?

What do you know about the relation between mathematics and economics?

What do you know and think about the relation between marketing and economics?

**PLEASE PRESENT THE ARGUMENTATION GIVEN CONCERNING  
ECONOMICS pp. 189-193  
and LAW pp. 193-194**

**Please comment on the following quotes from the text:**

“Nature inhabits [man] as much as he inhabits nature”

“What matters to us is still men and their city. But we know now that they cannot be separated from stones and trees. We are also beginning to understand the implications of such a separation.”

“It is beyond doubt, and indeed was expressly stated at the dawning of the modern scientific era, that the immense labours accomplished over the course of the centuries have also been motivated in part by the conviction that man would thus gain mastery and control over nature. Judging by the results of his scientific and technical activities, man would now rather appear to be the most abhorrent pestilence inflicted on the planet.”

“There can be no doubt that man's labours have been motivated, possibly even more profoundly, by the desire of knowledge for the sake of knowledge, a desire which was recognised very early as part of human nature, and which is no nearer satisfaction today than it was twenty-five centuries ago. To solve one problem is always to raise others; for each severed head of the Hydra several more grow, and our questioning shows little sign of exhaustion as time goes on. Theory follows theory, the success of each carrying with it the seeds of its own destruction qua theory. Apart from mathematics, where the terms of the question are different, and pure description where the question does not arise, all scientific truth is deferred error.”

“What we need is to reflect upon the situation of contemporary scientific knowledge itself, its internal problematic, its historical roots and its social function.”

“This scientific progressivism can today be seen in its true perspective, as one of the great and fertile illusions of history.”

“For the uncertainty which has arisen in the course of this scientific activity itself, and which has both hindered and stimulated its growth at every important stage in its progress, has come to call in question and represent a crisis for the entire categorical framework of science; it thus quite explicitly refers the scientist to a philosophical interrogation”

“what is at stake (...) is not only the metaphysics that have underpinned three centuries of Western science and that have provided it with its implicit and un-conscious conception of the ontological status of mathematical, physical, biological, psychical and social-historical objects. It is also and equally the logical framework within which these objects have been considered; it is the accepted model of the kind of knowledge to be pursued, the criteria of the presumed demarcation between science and philosophy, and the social-historical situation and function of science and of the organisations and people who sustain it.”

“What is observed' is in fact the product of an interaction between the observer and the observable.”

“The crisis affecting twentieth-century physics has served merely to reveal something which has always been the case, namely, that every physical theory presupposes a set of categories which are not self-evident, nor a neutral framework, and thus raise the issue of their interpretation, which from then onwards inevitably interferes with any theorisation of experience.”

“As a general rule, the unification of theories has wrought havoc with already established particular theories, or else has brought about an alteration in their meaning. Scientific truth is no more synchronically additive than it is diachronically cumulative. “

“The idea that it is impossible to present science as a *cumulative* process – amounts to the claim that what, for want of a better term, we shall call the historical stages of science, correspond to so many ruptures. From that point on, a number of new questions arise. For example, *of what* these ruptures are ruptures, or in other words, what is it that, at each stage and across all stages, constitutes the 'essence'. of the accepted system of science? What are the factors leading to rupture on any occasion? What is the relationship between the stages so distinguished and between the successive scientific knowledges corresponding to them?

The philosophical nature of these questions, the fact that they are indissolubly linked with questions about the essence of knowledge, about its historicity and about the nature of its object, is immediately apparent.”

“The net result is that the entire literature of modern economics is based implicitly on a psychology of individual behaviour that a feuilletonist of 1850 would have rejected as too simplistic: the individual never acts except in full awareness of what he wants and of how to go about obtaining it, and there is only one thing that he wants—to maximise his gains and minimise his effort.”

“The time has perhaps come to begin to think about the astonishing enterprise of human theoretical activity for what it is in its own right, and not by analogy with mirrors, masonry, dice-throwing or story-telling.”

“The questions about foundations, which philosophy has debated since its origin, re-emerge now in science after the long years in which it thought itself protected from them. “

“What has to be understood – what is novel – is not that number, continuity, iteration, relation, equivalence, order, matter, space, time, causality, identity, the individual, the species, life, death, the organism, finality and evolution remain problems to which science must on every occasion presuppose, by preterition, a particular pseudo-solution, while the philosopher – or the physicist disguised as philosopher – would still have the right, indeed would be more than ever duty bound, to speak about them. It is, in fact, incorrect to refer to these ultimate combinations of reality and thought, of the universal and the concrete, as problems, when it is they which allow us in the first place to articulate problems. What, then, must be understood, and what is novel, is that we are henceforth obliged to speak about them on the basis of an interrogation that is simultaneously scientific and philosophical, since neither the scientist nor the philosopher can

lay claim to the exclusive use of these terms, and nor can they pass them on, each one to the other.”

We cannot (...) pretend to believe that there exists a world of facts in themselves, which are what they are prior to all scientific interpretation, and independently of it, with which we can compare scientific theories in order to see whether or not they are falsified by it.

“There can be no rigorous demarcation between science and philosophy.”