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The "Objectivity" of the Liberatory Project

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Abstract: *This article examines the foundations of "objectivity" in both its orthodox and dialectical versions and questions the feasibility as well as the desirability of grounding the liberatory project on an "objective" theoretical system. The author's answer to the present dilemma —either to adopt a modern objectivist approach, despite the problems inherent in such an undertaking, or to adopt a postmodern subjectivist approach and abandon any idea of a liberatory project— is that, in fact, there is no genuine dilemma. Not only it is possible to define —without recourse to controversial objective grounds— a liberatory project that will constitute a synthesis of the autonomy demand and the demand for an ecological society but, also, today, more than ever, there is an imperative need to do so.*

The recent collapse of the "scientific" version of the socialist project, which, within the philosophical context of a postmodern challenge to objectivism in general, was precipitated by the demise of "existing socialism", poses a series of questions. First, do we, adopting the *postmodern* "generalised conformism,"[1] have to abandon any idea of a liberatory project, under the (miserable) pretext of letting "polyphony" flourish and under the (right) banner that "politics, rightly understood, is firmly *subjective*"?[2] Second, assuming that, today in particular, the ecological crisis on the one hand and the growing, within the present post-industrial societies, "rational domination" on the other pose an imperative need for the development of a new liberatory project, how are we going to proceed to justify it? Do we, following the *modernis*t tradition, have to rely on *objective* theories and methods (i.e., on procedures that are valid, irrespective of our expectations, wishes, attitudes and ideas) because they supposedly reflect "objective processes" at work in society or nature? These questions sum up a dilemma: do we have to adopt *either* relativism in all its versions and abandon any idea of a liberatory project *or*, alternatively, adopt some kind of "objectivism" in order to justify the liberatory project?

I will try to show that although there is an urgent need to develop a liberatory project, which would lead us away from the postmodern neo-conservatism, the attempt to "objectify" it is both futile and undesirable. If we define the liberatory project in terms of the demand for social and individual autonomy,[3] we do so, not because we can establish any "objective" laws, processes or tendencies "which, inevitably, lead to the fulfilment of the autonomy project" but only because we responsibly choose this particular tendency, tradition or "social signification". However, once we have chosen, broadly, the content of the liberatory project, some definite implications follow as regards our interpretation of social reality in general and of the present ecological crisis in particular. In other words, the very definition of a liberatory project conditions the "way of seeing" and criticising social reality.

Orthodox "Objectivity"

The first question arising in any attempt to objectify an interpretation of social reality, either in the form of legitimising the reproduction of existing social structures (as "orthodox" theorists do) or in the form of justifying drastic social change (as radical theorists do), refers to the methodology used in this process. By methodology, in the broad sense of the philosophy of science, we mean an investigation of the concepts, theories, assumptions and criteria of assessing them. The problem of methodology has, of course, a long history in the debates between orthodox social scientists on the one hand and marxist theorists on the other. The problem, however, reappears today, explicitly or implicitly, in the debates within the Green movement. It can be shown that significant disagreements between various streams in the movement are due to methodological differences with respect to the way "reality" is seen; such differences sometimes make even the very communication between them extremely difficult, if not impossible (see, e.g., the debate between social ecologists and deep ecologists). It is therefore of crucial importance to clarify the methodological issues involved in the current debates.

From the point of view of the relationship to the liberatory project, we may distinguish two main traditions in the philosophy of science. First, what I will call the "orthodox" tradition, in which I will classify the two main streams of rationalism and empiricism/positivism and second, the dialectical tradition. This distinction is based not so much on the content of the theories which have been developed with the help of the respective methodologies, but on the fact that, for reasons I shall discuss later, the dialectic method[4] is much more compatible with the development of a liberatory project than the orthodox method.

Rationalism

Rationalism mainly flourished in continental Europe (Descartes, Spinoza, Leibniz, Wolff, et al.), whereas empiricism (Bacon, Hume, Berkeley), with its descendants of positivism

(classical and logical) and falsificationism, has always been dominant in Britain and the USA. Rationalists as well as empiricists share a common pursuit for certainty in knowledge, that is, for truths that are certain because they are necessary. It is for this reason that in both traditions it is possible to speak of proof. Still, rationalists and empiricists differed between themselves, both as regards the source of truth and as regards the procedure to be employed in grounding knowledge on these truths. Rationalists find the source of truth in "reason", whereas empiricists/positivists find it in sense data, the "facts".

These differences, in turn, reflect different theories of truth. Thus, rationalism reflects a coherence theory of truth[5], according to which the criterion of truth is coherence with other propositions or judgements, something consistent with the deductive method of analysis. The foundation of this criterion of truth is the belief in the impossibility of developing a "neutral" language, that is, a language not dependent on a particular theoretical system or conception of reality: as there is no neutral way of comparing reality with our judgements, all that we can do is to compare one set of judgements with others. Knowledge, in other words, is conceptually mediated, and objectivity can only be established *within* a particular conceptual framework. This has two important implications. First, the incommensurability of rival theories, as well as their inferences, is the consequence of different assumptions/axioms used. Second, that any selection among such theories is based eventually on non-scientific criteria: there is no objective way of demonstrating the superiority of one theoretical system (in explaining reality) over another when both systems are internally consistent and coherent (e.g., the marxist and the neo-classical theory of value). For rationalists, therefore, knowledge of the world inevitably involves *a priori* concepts and propositions, where the connection between subject and predicate is necessary. By pure reasoning, rationalists argue, we can arrive at substantial knowledge about the nature of the world, whereas a system of truths, informing us about reality, could be deduced from logical axioms.

Empiricism

It was in reaction to rationalism's a priori and subjective character of knowledge that the alternative tradition of empiricism developed. Empiricism reflects a completely different theory of truth, a correspondence theory, according to which the criterion of truth is in correspondence with fact[6]. Experience therefore becomes the necessary basis for all our knowledge: since factual knowledge is based on perception, we cannot obtain factual knowledge by a priori reasoning. All *a priori* propositions are analytic ones, true by definition, and therefore do not claim knowledge of the world; they are not truths about matters of fact. On the other hand, all synthetic propositions (where the predicate is not

contained in the subject) are *a posteriori*; in other words, the connection between subject and predicate is not and cannot be necessary.

Still, not all concepts or ideas are a posteriori. Some are a priori, independent of experience but at the same time synthetic as well (e.g., causality) as Kant first emphasised. More important, perception is not just an unconscious process. As, for instance, Kuhn[7] points out, perception itself, though unconscious, is conditioned by the nature and amount of prior experience and education. There are therefore no "brute facts": all facts are theory-laden, and perception is always concept-dependent. We could only meaningfully talk about knowledge founded on sense-data if a neutral language could be derived. Therefore, the lack of such a language implies that the empiricist position is untenable, since sense-data are not independent of our knowledge of the world.

Positivism

However, in spite of the attacks by rationalists, Kantians/neo-Kantians, marxists, relativists and others, empiricism, in its various forms, has become the dominant epistemology among orthodox social scientists —a process that was helped enormously by the success of natural sciences and the corresponding rise of scientism. It was, in particular, during the emergence of what could be called the "scientific-industrial complex" that Comte's philosophy of (classical) positivism —the next step in the evolution of empiricism— began dominating social sciences. Comtean positivism introduced the well known dichotomy between fact and value, a dichotomy to be used widely by orthodox social scientists in their effort to develop a neutral, "value free" science of the economy or society in general[8]. Orthodox social scientists were helped enormously in this effort by, on the one hand, the later advent of logical positivism and, on the other, important developments in the theory of testing hypotheses in the 1930s and 1940s that made possible the application of empirical testing procedures in the study of social phenomena which, by nature, could not be subjected to experiment. In fact, logical positivism, that became dominant in the orthodox philosophy of science at about the same time that the developments in statistics were taking place, explicitly asserted the doctrine of *methodological monism*, that is, that all sciences, natural or social, should use the same method.

Although, now, logical positivists (a group of philosophers, subsequently known as the Vienna circle, which included M. Schlick, R. Carnap and others) claimed to produce a synthesis between the two epistemological traditions, that is, between the deductive and *a priori* rationalism on the one hand, and the inductive and a posteriori empiricism on the other, still, logical positivism was firmly founded in the empirical tradition. This is so because the main theses of logical positivism are well within the empiricist tradition. This

applies, in particular, to the thesis that a theory must be verifiable to be scientific; in other words, it must not contain metaphysical statements and value judgements. It also applies to the thesis that the primary source of knowledge is considered to be (once more) observation, or sense experience; reason is merely mediating as a logical check of the coherence of hypotheses and their implications.

However, although logical positivism definitely represented an improvement and, at the same time, a retreat, with respect to the extreme empiricist position of a belief in *proven* truth, it still suffered from serious weaknesses. Thus, to mention some of the more important criticisms raised against it, the Carnapian proposition, that although scientific theories are equally unprovable, still, they have different degrees of probability relative to available evidence, was shown by Karl Popper to be untenable on the grounds that under very general conditions, all theories, whatever the evidence, can be shown to be not only equally unprovable, but, also, equally improbable.[9] Also, as there is no specification whatsoever of the number of tests a theory has to pass in order to be verified, the question arises as to how we know that the regularity established today will also be valid tomorrow. Finally, as Katouzian points out, the two most important criteria of logical positivism (verifiability/verification) are normative, since they have not been verified themselves, and normative statements, according to the principles of logical positivism, are simply tautologies. Logical positivism, therefore, far from providing an objective methodology, became an ideology inhibiting the growth of knowledge and serving the interest of the status quo.[10]

Falsificationism

These weaknesses of logical positivism led to another version of empiricism, falsificationism, which represents a further retreat from the original empiricist position. The demarcation criterion of what is scientific now changes from verifiability/verification to falsifiability/falsification. It is therefore explicitly recognised that theories are equally unprovable/improbable, but, still, they may not be equally disprovable: a finite number of observations can disprove a theory so that empirical counter evidence becomes the one and only arbiter to assess a theory. However, even this further retreat from empiricism did not produce a tenable thesis. Sophisticated falsificationists (like Karl Popper in his later writings, Lakatos and others) rejected this form of Adogmatic falsificationism," as they called it, on the basis that it rested on false assumptions and a too narrow demarcation criterion between scientific and nonscientific.

The false assumptions were, first, that we can distinguish between theoretical and factual propositions. Such an assumption, however, is based on the belief that facts, which are not

theory laden, do exist. Second, that propositions satisfying the criterion of being factual are true —an assumption implying that factual propositions can be proved from an experiment. But as Lakatos[11] emphasises, Awe cannot prove theories and we cannot disprove them either; the demarcation criterion between the soft, unproven **"**theories**"** and the hard proven **"**empirical basis**"** is non existent: all propositions of science are theoretical and incurably fallible." Finally, the falsificationist demarcation criterion is so narrow that it would leave out of science the most admired scientific theories, which can easily be shown to be neither provable nor disprovable.[12]

Scientific Research Programmes (SRP)

Starting from the position that scientific theories are not only equally unprovable/improbable but also equally undisprovable, Lakatos attempted, with his SRP methodology, to provide some scientific standards (a demarcation criterion) which, though founded again on some sort of empirical basis, still, will not be subject to the inflexibility characterising "dogmatic" or "naive" falsificationism. Thus, first, he changed the demarcation criterion so that the empirical basis is no longer required to forbid the disproval of a theory, but just the rejection of it. A theory may therefore be falsified and still remain true. Second, a nonfalsifiable theory can now become falsifiable by specifying certain rejection rules in advance. That would allow probabilistic theories back into the scientific fold, provided the scientist specifies the rejection rules that would render the statistical evidence found inconsistent with the theory. Finally, whereas for the "naive" falsificationist any theory which can be interpreted as experimentally falsifiable is acceptable/scientific, for Lakatos, a theory, or, better, an SRP (a set of hardcore hypotheses or propositions, not subject to the falsification process, and of less fundamental auxiliary hypotheses forming a "protective belt" around this core, which are the object of testing and amendment) is acceptable/scientific if it has corroborated excess empirical content over its rival, that is, if it leads to the discovery of novel facts.

Lakatos therefore claimed that he had solved the problem of objective criteria that so much bothered the orthodox philosophy of science. An SRP, including its untestable hard core, could be rejected, objectively, using the normal testing procedures. However, as Feyerabend[13] points out, the standards that Lakatos offered are, in fact, vacuous because they neither specify any time limit, over which the excess empirical content of an SRP could be verified, nor could they possibly do so, if return to naive falsificationism was to be avoided. That is why, Feyerabend concludes, Lakatos seems to retain these (supposedly permanent standards) as "a verbal ornament, a memorial to happier times when it was still thought possible to run a complex and often catastrophic business like science by following a few simple and rational rules."

Objectivity versus Intersubjectivity

It is therefore obvious that orthodox philosophers of science have failed to provide criteria either of "proven" truth (the truth of rationalists and classical empiricists) or of "provable/verifiable" truth (the logical positivists' truth) or even of truth based on permanent falsificationist standards (the Lakatosian truth). As therefore "the requirements [for objectivity] were gradually weakened until they disappeared into thin air,"[14] the "Kuhnian revolution" brought the power relation into orthodox epistemology through the adoption of the relativistic position of **"**truth by consensus**"**. What is therefore "scientific" or "objectively true" becomes a function of the degree of intersubjectivity, that is, of the degree of consensus achieved among the theorists in a particular discipline. Objectivity, of course, implies intersubjectivity, but the opposite is not true. Intersubjectivity simply implies a common framework against the background of which people can communicate [so that] ... what counts as fact depends on how we have come to see the world and upon the conceptual structure that is presupposed in our seeing it in this way."[15] All this brings us to the concept of "scientific paradigm" developed by Thomas Kuhn.

The concept of paradigm has been used (and abused) extensively in its 30Byear history. Part, at least, of the blame for the abuse could be attributed to the father of the concept himself since, as M. Masterman[16] observes, the term is used in Kuhn's book in at least 22 different ways! In its broadest sense, which is the most useful one for the purposes of our discussion, the paradigm refers to the entire constellation of beliefs, values, techniques and so on shared by the members of a given community."[17] In this sense, the paradigm includes not only a theory, or even a set of theories, but also a worldview, a way of seeing the object of study, which in turn is conditioned by the overall worldview of scientists (i.e., the set of shared beliefs about the individual's relationship to the natural world and to other humans in society). Further, the concept contains a set of admissible problems to be solved, as well as the methods to achieve legitimate problem/solutions. A paradigm, in this sense, is a tradition.[18] For example, the ecomarxist paradigm differs from the liberal environmentalist one, not just because each uses a different theory to explain the ecological problems (and therefore suggests different solutions), but also because each uses different methods (concepts, assumptions, criteria of assessing theories) all these differences based, in the last instance, on different worldviews.

It is therefore obvious that the paradigm concept, in its broad sense, is much broader than the Lakatosian SRP, and this has very important implications for the question of the objectivity criteria. As the very criteria for assessing the paradigm-based normal scientific activity (the Lakatosian protective belt) are part of the paradigm, any "objective" comparison of paradigms is impossible.[19] This is crucial because any incommensurability between

paradigms (as a result of differences about the list of admissible problems due to different worldviews or about the methods to solve these problems and the criteria to use in choosing between these methods) is an absolute one. People sharing different paradigms "live in different worlds", see different things or in a different relation to one another and can only shift from one paradigm to another in a *gestalt-switch* that converts them from adherents to one way of seeing things to another. This is inevitable, as soon as we accept that there are no objective criteria which are not paradigm-dependent to choose among paradigms. Scientists (or theorists in general), therefore, by adopting a paradigm, in fact adopt a "package deal" consisting of theories, facts that fit them, a worldview *and* criteria to assess them. Thus, as far as objectivity is concerned, the paradigm notion implies the nonexistence not just of tradition-independent truths (material notion of objectivity), but also of tradition-independent *ways of finding* truths (formal notion of objectivity).[20]

In this paradigmatic view of science it is therefore obvious that the higher the degree of intersubjectivity achieved in a specific time-period, the more "mature" scientifically a discipline is and the bigger the output of "truths" produced by the respective scientific community. However, there is a crucial difference as regards the degree and type of intersubjectivity that historically has been achieved between, on the one hand, social scientists and, on the other, natural scientists. Furthermore, there is a very significant difference in the degree of success the two types of science have historically enjoyed in explaining their object of study, that is, social and natural phenomena, respectively. These differences arise from the object of study itself and have important implications for the question of whether the liberatory project can be objectified.

To illustrate these differences, let us take the example of economics which is considered to be the "hardest" science among social sciences, mainly, because of its greater ability to quantify the relations it studies. For more than a hundred years, after the publication of *Das Capital*, two economics paradigms based on radically different worldviews and traditions divided the economics profession: the marxist versus the "orthodox" paradigm.[21] However, one could possibly argue that the criteria that economic theorists used in choosing among the two main paradigms were not mainly scientific. In fact, it was social factors, that is, factors directly linked with their own object of study (economy/society), that played a crucial role in this choice. Thus, the institutional framework, within which economists functioned, in connection to their own social position and career ambitions, conditioned their social, political and moral preconceptions, that is, their worldview, on the basis of which their paradigm choice was made. As regards the institutional framework, in particular, it is not accidental that the dominant paradigm (i.e., the one most widely accepted by) in the Western and Eastern scientific communities was the orthodox and the marxist ones, respectively. Neither, of course, is it accidental that the orthodox paradigm's present

worldwide domination has much more to do with the collapse of "existing socialism", which "converted" economists to this paradigm, rather than with any scientific criteria about its superiority over the competing marxist paradigm. The reason is simple. Given the incommensurability between the two paradigms, there are no scientific criteria to choose objectively between them.

One could therefore argue that the object of study plays a much more important role in social than in natural sciences, with respect to determining the choice of a paradigm. This is due to the fact that the social theorist's worldview is almost impossible to be "abstracted" from his object of study, society. Furthermore, given the social divisions characterising a hierarchical (or heteronomous) society, there is an inevitable division among social theorists, in particular as regards the fundamental question of whether to take the existing social system for granted or not in their theoretical work. However, no similar, inevitable division could arise among natural scientists. This fact, combined with the possibility of experiment that, unlike the social sciences, is available in the natural sciences, could explain the higher degree of success that, compared to social sciences, natural sciences have traditionally enjoyed in interpreting their object of study.

Dialectical "Objectivity"

As it is obvious from the above discussion, orthodox philosophy of science has been unable to solve what has been called the "problem of method", that is, the problem of establishing objective criteria in assessing theories. Still, for those adopting the dialectical method of analysis, the problem is nonexistent, as for them "techniques" for thinking out a process cannot be separated from the process itself. A useful way of introducing the dialectical approach would perhaps be to start with Kant's contribution that exerted significant influence on it.

Kantianism

Although the Kantian system was intended to supersede both continental rationalism and British empiricism, History did not vindicate this intention. However, Kantianism can be considered as a synthesis (in the Hegelian sense) of the other two traditions, that is, as an original system subsuming both of them. In the Kantian system, knowledge is seen as founded not just on pure reason, nor just on sense-data, but on both. Thus, the truth of propositions can only be assessed with reference to the categories we use, which are methodic rules of an entirely a priori nature, that is, independent of experience. The categories, therefore, are the conditions of knowledge because, although by themselves they give no knowledge of objects, they serve to make empirical knowledge possible.

Things cannot be known except through the medium of categories which, created by the mind, assume the function of synthesising the sense/data.

The importance, however, of Kant in the alternative philosophy of science is that, for the first time, a philosopher attains in his system knowledge of one of the most important dialectical oppositions: between empiricism and totality, between form and content, a theme that was later expanded by Hegel and Marx. This is achieved, according to Goldmann,[22] through the development, in his critical philosophy, of the idea of totality.

Following Goldmann, we may distinguish three philosophical traditions with respect to their worldviews about the fundamental category of human existence:

- the individualist/atomist worldview, whose principal category is the *individual*. Society, according to this view, is a set of interactions among autonomous individuals. Orthodox philosophers of science, both in the rationalist and empiricist tradition (Descartes, Leibniz, Locke, Hume, Vienna Circle et al.), adopt this worldview;
- the holistic worldview (Schelling, Bergson, Heidegger et al.), whose principal category is the whole. The part here exists only as a necessary means to the existence of the whole. In this view, the autonomous individual becomes the exception within the system (the leader, the hero, etc.);
- the worldview, whose principal category is the *totality* in its two main forms of the Universe and the human community. The totality differs from the whole of the holistic worldview because the former is a contradictory whole: Athe parts [of the totality] presuppose for their possibility their union in the whole; the autonomy of the parts and the reality of the whole are not only reconciled but constitute reciprocal conditions; in place therefore of the partial and oneBsided solutions of the individual *or* the collective, there appears the only total solution, that of the *person and the human community*."[23] It is this philosophy of the *we* that could resolve the contradiction between Theory and Practice, between the individual and the community. Empiricists/positivists, with their atomistic conception of the world, deny the possibility of the existence of any totality, either theoretical (since for them knowledge is constructed by factual connections) or practical (since `what is the positive element has always to be distinguished from the normative element). However, for many philosophers in the alternative tradition, Hegel and Marx among them, the concept of totality is a fundamental category of the dialectical method to which we now turn.

The Dialectical Approach

The main characteristic of the dialectical method is that it adds another dimension to thought: the historical dimension, the potentiality as historical possibility. Empiricism/positivism cannot explain the hidden causes of empirical phenomena, the essence behind the appearances, exactly because it lacks the historical dimension. In this sense, empiricism/positivism, especially when used in the analysis of social phenomena, far from leading to "objective" knowledge, ends up as a justification of "what is", of the status quo. There is therefore a high degree of compatibility between the orthodox philosophy of science and the orthodox paradigms in the social sciences. On the other hand, the dialectical method, by distinguishing between the real "given" and the possible to be achieved through social action, offers itself as an "objective" justification of the liberatory project. It is not therefore accidental that both marxists and social ecologists use different versions of the dialectical method (dialectical materialism and dialectical naturalism, respectively) to justify their projects.

Reality for empiricists is "what is", whereas for those using the dialectical method it is "what should be", given the potentiality latent in development. So, "what is" should always be assessed in terms of what it could potentially become. Thus, while reality for empiricists is factual and structural, for dialectical philosophers it is processual. The very meaning of a "fact" is very different in the dialectical method since it consists not just of a set of immutable boundaries but, instead, of a set of fluid boundaries and its mode of becoming; in other words, it includes the past, the present and its future.

The concept of objectivity in dialectics takes, therefore, a very different meaning from the traditional notion of objectivity in empiricism. What is objectively true is not what corresponds to facts/what could be verified or, alternatively, what could not be falsified/rejected, on the basis of an appeal to sense/data, because sense/data can only give information about "what is". Instead, what is objectively true in dialectics is, as Bookchin puts it, "the very process of becoming —including what a phenomenon has been, what is and what, given the logic of its potentialities, it will be, if its potentialities are actualised."[24] In this sense, the dialectical "real" is even more "real" than the empiricist one; since it expresses the logical implications of the potential, it is the realisation of the potential, the rational.

Another major difference between the orthodox empiricist/positivist method of analysis and the dialectical one refers to the fundamental concept of totality used by the latter. The concept of totality in its two basic forms, the Universe and the human community, allows us to see:

- the dialectical contradiction in knowledge that the parts can only be seen through the whole which envelops them, whereas the whole can only be seen through factual knowledge of the parts;
- the dialectical contradiction in human community that individuals can only be seen through society, whereas society can only be seen through knowledge of individuals. The motor of change is contradiction between parts whose tension transforms the totality itself. Society, therefore, cannot be seen, as empiricists/positivists argue, as a set of interactions among autonomous individuals. Empiricism/positivism, by denying the existence of any totality, theoretical or practical, and concentrating instead on atomic propositions, using as its principal category that of the individual, cannot unite the whole with the individual. That is why empiricism/positivism is associated with an atomist worldview which denies the concept of totality;
- the contradiction between the real given and the possible Ca contradiction arising out of the conception of reality as a goal, something to be achieved by action. As such, totality unites Theory and Practice, the individual and the community. This is in contrast not only to empiricism/positivism but to rationalism as well, which is also dualistic and creates an artificial division between subject and object, theory and practice.

However, the dialectical approach, which today constitutes effectively the only alternative to the dominant (especially in the USA and UK) analytical philosophy, is also unable to solve the problem of "objectivity", as the following discussion of marxist dialectics will also illustrate. This is so because, for reality to be assimilated by dialectical thought, the condition is that it should be dialectical in form and evolution and therefore rational. But as Castoriadis puts it, Awe cannot have a dialectic straight away, whichever that may be, because a dialectic postulates the rationality of the world and of history and this rationality is a problem, both a theoretical and a practical one."[25] The dialectical approach, therefore, as well as the orthodox approach suffer from what Hindess and Hirst[26] call the epistemological fallacy," that is, the construction of an *a priori* core of concepts, *assuming* their own conditions of validity. This is, of course, a position which easily brings to mind the Kuhnian position that a paradigm contains its own criteria of validity.

The "Problem of Knowledge" in the Marxist Project

A similar methodological debate to the one that has taken place in the orthodox camp between positivists and rationalists/neo-Kantians took place on the marxist side as well. The debate concerned what is called "the problem of knowledge", that is, the problem of the criteria by which a body of knowledge can be judged: whether and how the correspondence of theory to reality can be judged and demonstrated. I would classify the variety of marxist

tendencies with respect to the problem of knowledge as follows. First, there is what I would call the "philosophical tendency", a tendency within which Practice is given priority over Theory. It is the tendency which is inspired by what Castoriadis[27] identifies as the revolutionary element in Marx, that is, the element declaring the end of philosophy as a closed system.[28] Within the context of this tendency, no problem of knowledge arises. But then, as we shall see below, the belief in a marxist science based on objective truths becomes also untenable given the implicit or explicit relativism that characterises this tendency.

Second, there is what I would call the "scientistic" tendency, where a reversal of emphasis takes place, that is, the theoretical, the scientific element, is given priority. This is the element that eventually dominated Marx's work[29] and marxism thereafter, and it is what Castoriadis calls the traditional element in marxism. It is due to the latter element that marxism ends up as just another theory, another closed system to explain the essence of society, and in this sense, therefore, it faces exactly the same problem, as other scientific theories do, about the guarantee of truth. The common feature of all the currents belonging to this tendency is that they explicitly adopt the desirability and feasibility of a neutral "scientific" explanation of external (social) reality.

The Philosophical Tendency in Marxism

It will have to be clarified, first, that what I call the "philosophical tendency" has not much to do with the view of *Marxism-as-philosophy*. Philosophy in dialectical materialism, which constitutes the most common interpretation of this view, is in fact a science, or, better, *the* science of History and Society and as such belongs to the scientistic tendency we shall consider next. McLennan, for example, is clear about it: "the role of philosophy, not as metaphysics but as generalisations from science and its concepts, takes on a «scientific» aspect that stands or falls not with ideology, but with science itself."[30] Such a view, however, of marxism-as-philosophy also suffers (for the reasons mentioned above) from the «epistemological fallacy" that Hindess and Hirst emphasise.

An alternative to the marxism-as-philosophy view, more relevant to the philosophical tendency, is the *marxism-as-method* view. G. Lukacs's argument that even if research disproved all marxist theses in toto, this should not worry orthodox marxists, because orthodoxy refers exclusively to method"[31] is well known. This view, however, can be criticised on several grounds. First, as McLennan points out,[32] the idea that marxism is no more than a methodological tool is not only strange, but also as philosophical as the marxism-as-philosophy view. Second, as Castoriadis emphasises,[33] method and content are inseparable, the one creating the other, and marxist categories are themselves

historical. A similar position was also taken by Karl Korsh, who argued that marxism, like all theories, has historical conditions of existence, to which it alone is relevant.[34]

The starting point in knowledge, according to the philosophical tendency (Karl Korsh, George Lukacs —with some qualifications— Peter Binns, Derek Sayer, Phillip Corridan and others), is neither pure self-awareness, as in rationalism, which creates an artificial duality between subject and object, theory and reality, nor sense-data, as in empiricism, which not only is dualistic but also identifies essence with appearances. Instead, the starting point in knowledge is human beings' active contact with nature and society. Science, therefore, is the unity of theory and practice, since it not only interprets reality but also becomes part of the force changing it, a part of praxis, that is, the conscious determinate shaping of history. Thus, scientific laws are not predictive (not even in a probabilistic sense, as Lukacs[35] points out); instead, they only constitute a framework within which theoretically informed and therefore effective social practice is possible.

The fact that social practice is the source, the test and the aim of knowledge is, of course, a commonplace among marxists. The real issue, therefore, is whether practice should be seen as the *creator of truth* and knowledge[36] within the context of an empirically open-ended system (as the philosophical tendency accepts) or alternatively, as a *criterion of verifiability* of a knowledge that constitutes in effect a closed theoretical system (as the scientistic thesis implies). No problem of criteria and of scientificity arises within the philosophical tendency, as such a problem presupposes a distinction made between subject and object, between theory and reality, a distinction explicitly denied by this tendency. Therefore, the only criterion of validity here is life, action, struggle.[37] Orthodox philosophers, on the other hand, do face the problem of knowledge, exactly because, for them, the criterion of validity is external, outside the social being of those holding the ideas, located somewhere in an autonomous and asocial realm of reason (rationalists) or experience (positivists).

The price, however, to be paid in order to overcome the problem of knowledge in this way is heavy: marxism cannot claim anymore a scientific status based on objective truths, as marxist critics of the above thesis were quick to point out. Because, if we accept that theory is based on practice, by which it is meant the class practice of the proletariat, we end up not with a science based on objective truths but with a *class science* of the proletariat. The marxist argument, that the proletariat expresses the general interest of society in abolishing class society, does not make the scientific claim of marxism any more valid because the superiority of marxist theory still depends on its unique ability as potential working class consciousness to abolish the class system. This is why marxist critics of the scientistic tendency, like Collier,[38] argue that the above view of marxism transforms it into

theology and that practice should be seen not as *creating* truth but as merely *ascertaining* its occurrence, a position that Kolakowski,[39] rightly, characterises as "marxism of a positivistic orientation."

The "solution" to the problem of knowledge, therefore, provided by the philosophical tendency is vacuous.[40] As orthodox social science could, also, be seen as a class science to serve the dominant class's interests, we end up with two incommensurable paradigms and no possibility of developing an objective science of society.[41]

The Scientistic Tendency in Marxism

The basic thesis of the philosophical tendency, that dialectical materialism is not only distinct from, but also a safeguard against, orthodox epistemology and, further, that method can be separated from content, is not universally accepted among marxists,[42] and it is particularly criticised by those marxists emphasising the scientific nature of marxism. The common elements shared by marxists in this tendency are that reality is independent of theory (though the reverse is not true), that theory is independent of its subject and that the truth of a theory is found in its ability to "appropriate" or reproduce reality in thought. However, as we have already seen, there are several ways to establish that a theory corresponds to, or adequately reflects, reality. We may therefore distinguish between empiricist and rationalist currents within the scientistic tendency.

Empiricist Marxism

This is a tendency that originated in the late writings of Engels[43] and was further developed by Plechanov, Bucharin and Lenin.[44] In modern times, this tendency dominated Anglo/American marxism, reflecting, one could suspect, the traditional dominance of empiricism/positivism in this part of the world. The problem of knowledge does exist in this tendency, and the solution to it is given in terms of empiricist criteria that could establish the adequacy of the theory with respect to its correspondence to reality.

So, although the exact testing procedures are not specified, it is clear that a correspondence theory of truth is involved here. Still, it should be stressed that, notwithstanding the fact that experience is the ultimate criterion of truth in both orthodox and marxist positivism, the methodological individualism of the former is explicitly rejected by the latter. Sense/data therefore are not considered to be the starting point of knowledge; nor does reality have to be reduced to atomic components to be understood scientifically. Also, the aim is still the discovery of the essence behind appearances. However, since the ultimate aim of empiricist marxism is the raising of the socialist project from a utopian ideal to a science of the economy/society, all those elements of marxist dialectics, and

principally the class struggle, that could not be built into the scientific laws of the economy have to be abstracted from and transferred to a different level of abstraction.

In my view, empiricist marxism not only is not in a position to solve the problems orthodox empiricists/positivists face (nonexistence of "brute" facts, lack of nonvacuous standards to assess rival theories, etc.), but it also adds some extra problems due to its vagueness. For instance: how the adequacy of a theory with respect to experience should be assessed, through a verification/falsification procedure, through success in social practice or through some other criterion and[45] how the distinction between the praxis of the social subject and his awareness of that praxis is removed.[46] Furthermore, the fundamental question remains: how can we be sure that we have discovered the essence behind appearances, especially when the essence is contradicted by phenomena?

Rationalist Marxism

The starting point in rationalist marxism is the necessity for the conceptualisation of reality, prior to the possibility of science. This implies a denial of the empiricist position that beliefs/propositions about reality could be derived from a world experienced but not yet conceptualised. The French marxist structuralist school might be classified in this current of marxism, although marxist structuralists themselves might deny their classification as rationalists in the above sense. However, their affinities to rationalism are much more significant than to any other tendency/current in marxism.[47]

For structuralist-marxists, the problem of knowledge is an ideological problem[48] as ideological is all traditional epistemology. The real issue for them is not one of criteria of scientificity, but of *mechanisms* producing a knowledge effect. The criteria of knowledge are defined within the science itself, by its scientificity, its axiomatics. As Althusser puts it, Theoretical Practice is indeed its own criterion and contains in itself definite protocols with which to validate the quality of its products, i.e., the criteria of the scientificity of the products of scientific practice."[49] Marxism, in structuralist marxism, is not only a science but a superior science, the science of all sciences, given its ability to synthesise the various special sciences. Marxist philosophy therefore becomes the general theory of Theoretical Practice and "the key to and judge of what counts as genuine knowledge."[50]

However, Althusser's operation to do away with the philosophy of guarantees has failed. As several (marxist) critics have pointed out, Althusserians base their theory of Theoretical Practice on a coherence theory of truth, where the criterion of truth is simply comprehensiveness and lack of contradictions with respect to the thought structure of marxism.[51] Althusserian marxism can only claim superiority over other sciences (which

might be equally comprehensive and nonBcontradictory) if one accepts *a priori* the worldview embodied in the structuralist paradigm. As Binns points out,[52]

> *not only are the parameters in terms of which the world is to be examined structureBspecific, but so too are the very conceptualisations of the world they are used to explain. The very incommensurability of these worldBsyntheses effectively prevents any demonstration of the superiority of any of them. To accord any of these the honorific description of being scientific in these circumstances, as does structuralist marxism, seems quite gratuitously and pompously misleading.*

Realist Marxism

If Kantianism can be seen as a dialectical synthesis of classical empiricism and rationalism, then, by the same token, realism can be seen as a dialectical synthesis of modern empiricism/positivism on the one hand and rationalism/Kantianism on the other. In fact, some recent marxist work sees the realist epistemology as a way to overcome the present crisis of marxist theory, in the sense that it avoids the pitfalls of both the dialectical approach (essentialism, teleology) and of empiricism/ relativism (atheoretical character).[53] The object**s** of scientific knowledge, according to realist philosophers of science, is neither atomistic events and phenomena (as in empiricism/positivism), nor models, that is, human constructs imposed on phenomena (as in rationalism/ Kantianism). Instead, the object of scientific knowledge is structures and *mechanisms* that generate phenomena, which operate independently of our knowledge and experience. Science, as defined by a realist philosopher, is the systematic attempt to express in thought the structures and ways of acting on things that exist and act independently of thought."[54]

The realist definition of science is based on three fundamental assumptions:

- that the world is structured (so that science is possible),
- that the world is an open system (i.e., a system where no constant conjunction of events prevails) consisting of enduring and nonBempirically active natural mechanisms, and, finally,
- that the ontological order is completely independent from the epistemological order and that therefore philosophical ontology (Is the world structured/differentiated?) should not be confused with the epistemological ontology (Which are the particular structures contained in the world?). The only link between the two orders can be provided by experimental activity, which can give us access to the enduring and active mechanisms that constitute the real world, through the creation of close conditions that make the confirmation/ falsification of a theory possible.

An open system cannot be adequately grasped in terms of the constant conjunction of observed phenomena (as empiricists attempt to do) because perception gives access only to *things* not to *structures* that exist independently of us. Thus, the empiricist causal laws are only expressing tendencies of things, not conjunctions of events, and are tied up to closed systems. The inadequacy, therefore, of the empiricist/ positivist criteria of confirmation/falsification is due to the fact that they are based on the assumption that a closed system is the rule, rather than the artificially generated exception. Although, therefore, realists do not reject the general relativity of knowledge that Kuhn, Feyerabend and others emphasise and according to which descriptions of the world are always theoretically determined and not just neutral reflections of it, still, they argue that, provided that we can create close conditions, we can get access to the structures of the world. This has the important implication that a criterion of choosing among incommensurable theories is possible.[55]

However, the applicability of this criterion crucially depends on the possibility of experimental activity, a fact that turns any idea of methodological monism into a fantasy; the realist safety valve to preclude relativism cannot, by definition, work with social sciences. This is so because, although society may be an open system as realists assume it is impossible to create artificially closed conditions in order to confirm/falsify our theories about it. Realist philosophers of science are, of course, well aware of the problem, and they attempt to "solve" it, or, at least, bypass it. McLennan, for instance, argues that social theory is necessarily historical, given the constitutive role that agency and thought play with respect to its object of study. However, the procedures he suggests, so that the lack of experimental activity in social sciences could not play a decisive role in differentiating them from natural sciences, are obviously inadequate.[56] The inescapable conclusion is that the problem of choosing among incommensurable theories in the social sciences and by implication the problem of scientifying or objectifying the liberatory project has not been solved by realist philosophers either.[57]

An "Objective" Liberatory Project?

The conclusions one can derive from the above analysis may be classified as follows:

- Theories about social reality, on which a liberatory project could be founded, may be incommensurable in the Kuhnian sense. In particular, to the extent that the formulation of such theories is crucially related to the question of whether the present social system should be taken for granted or not, incommensurability between them is inevitable. The incommensurability, for instance, between the orthodox and the marxist theories on the mode of operation of the capitalist

economy, or between the social and deep ecology views on the causes of the ecological crisis,[58] is an absolute one, in the sense that it implies deep differences, not just in worldviews, but, also, in the criteria/methods to assess theories. Also, as Feyerabend points out, scientific theories … use different (and occasionally incommensurable) concepts and evaluate events in different ways" whereas at the same time what counts as evidence, or as an important result, or as "sound scientific procedure" depends on attitudes and judgements that change with time, professions and occasionally even from one research group to the next."[59]

- In case of incommensurability, there are no objective criteria to choose among competing theories, a fact that implies that the only way to switch from one "way of seeing things" to another is through a process of conversion rather than through a process of producing extra evidence, rational argument, etc., which are paradigm-dependent methods of establishing the "truth" of a theory.

However, it is not only the objectivisation of the liberatory project that is, at least, doubtful. The desirability of grounding it on an objective basis is also under question. This is so because the essence of democracy (that embodies the autonomy project) is not just its institutions but the fact that it is a constant *process* of debating and deciding institutions and traditions.[60] A *democratic relativism* (i.e., that traditions are debated and decided upon by *all* citizens[61]) is therefore an essential element of the autonomy project. In this sense, one could argue that to the extent that the socialist project is "scientified" it becomes part of the heteronomy tradition. It is not therefore accidental that in the case of "existing socialism", it was exactly the marxist conversion of the socialist project into an "objective" science that contributed significantly to the establishment of new hierarchical structures in the socialist movement first and in society at large later. The basis of the new hierarchical structures was the social division created between the avantBgarde, that was alone in an objective position to lead the movement (because of its knowledge of the scientific truth that marxism embodied) and the "masses". Also, in the case of capitalist societies, it is still the mystification of the "expert" that allows technocrats to present their "solutions" to economic or social problems as if based on an "objective" theory founded on "scientific" premises, whereas, in fact, their theory is very much based on assumptions that presuppose the existing status quo of the capitalist market system and all that this implies in terms of inequality in the distribution of productive resources, income and wealth.

The liberatory project cannot and should not be "scientified" or "objectified". In fact, there is no need to ground it on any objective "laws" or "tendencies", which, inevitably, direct social organisation towards a specific direction. If freedom is identified with autonomy, then the potentiality for social and individual freedom is fulfilled only when an autonomous society, consisting of autonomous individuals, is created. We can therefore define a new liberatory

project that will constitute a synthesis of the demand for an ecological society and the autonomy demand. The adoption of the autonomy demand would simply represent a conscious selection among the two main traditions in the institution of society: the autonomy versus the heteronomy tradition.

Historically, although heteronomy has been dominant for 15 centuries, the autonomy project reappears in the twelfth century A.D. (after it has reached its peak in classical Athens) with the development of the new cities in Europe and their struggle for self-government. In the eighteenth century, with the Enlightenment, the autonomy project is radicalised at the intellectual, social and political level (e.g., Parisian sections of the early 1790s). During the period 1750-1950, a political, social and ideological conflict develops between the two traditions, the heteronomy tradition being expressed by the spreading of capitalism and of new social forms of hierarchical organisation that embody a new "social imaginary signification" (adopted by the socialist movement): the boundless spreading of "rational domination",[62] which identifies progress with the development of productive forces and the idea of dominating Nature. Finally, in the present era (1950 onwards), both traditions enter a period of serious crisis. Thus, first, although the spreading of capitalism's rational domination is accelerating, the capitalist model itself is in a deep crisis expressed by:

a) its dismal failure to "develop" (in capitalist terms) the South, where the vast majority of the Earth's population lives, and b) the growing ecological destruction that not only degrades the quality of life but threatens life itself on the planet. Paradoxically, at the same time, the autonomy tradition, after its brief explosion in the late sixties, is also in a state of "total eclipse", as Castoriadis puts it, a fact illustrated by the lack of social, political and ideological conflicts.

As regards the lack of ideological conflict in particular, postmodernism, as it was rightly pointed out by Castoriadis,[63] simply represents the abandonment of the critique of the institutionalised social reality and a general retreat to conformism, in the name of *political relativism* (all traditions have equal rights). However, the adoption of political and democratic relativism does not imply the need to accept a *philosophical relativism* that will give equal value to all traditions, in the sense of all being accepted as equally true or false.[64] The very possibility (in the sense of its institutionalisation) of relativism and particularly of democratic relativism, depends on the rejection of philosophical relativism: the heteronomy tradition is incompatible with democratic relativism and therefore cannot share equal value with the autonomy tradition. Furthermore, once we have made a choice among the main traditions, some definite implications follow as regards our interpretation of specific social events and problems (e.g., the ecological crisis) and of social evolution in

general. Although, therefore, the "imaginary" or creative element plays a crucial role in the "institution" of society, still, the very definition of the content of the liberatory project in terms of the autonomy tradition has important implications at the interpretational level.

For instance, in interpreting the ecological crisis, its causes and the implied solutions, it is impossible to accept the peculiar pluralism that, for example, Naess[65] proposes (with respect to biocentrism), since the very choice of the autonomy tradition implies that only a specific set of interpretations is compatible with it. Irrespective, therefore, of whether we choose the orthodox or the dialectical method (marxist or naturalist) or no method at all, our choice of the autonomy worldview constrains us to see the roots of the ecological crisis in terms of the hierarchical social relations and structures which have been dominant for so long (as social ecology does) and not in terms of the relationship between an undifferentiated "society" and nature (as environmentalists, deep ecologists and others do). For the same reason, environmentalist (liberal or social democratic), mystical and metaphysical "solutions" to the ecological problem should be rejected, not because they are not compatible with supposedly "objective", social or natural, processes at work, but because they could be shown to be incompatible with social and individual autonomy, that is, incompatible with freedom itself.

In conclusion, the question I asked at the beginning represents, in fact, a pseuddilemma. The problem today is not *either* to adopt relativism in all its versions, a stand that may lead to a postmodern conformism *or*, alternatively, to adopt some kind of "objectivism" in order to justify the liberatory project. What is lacking today is not a new "objective" justification of the liberatory project, but the political will to define it and take part in its realisation!

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[1] Cornelius Castoriadis, "*The Era of Generalised Conformism*," lecture given at Boston University on 19 September 1989 in a symposium under the general title "Metaphor for Our Times."
[2] P. Feyerabend, *Farewell to Reason* (Verso, 1987), p. 306.
[3] For a definition of the liberatory project in terms of social and individual autonomy, *see* Cornelius Castoriadis, *L'Institution Imaginaire de la Societe* (Paris: Seuil, 1975), Ch. 2.
[4] Dialectical philosophers like Murray Bookchin disagree with the conception of dialectics as a method: "it distorts the very meaning of dialectic to speak of it as a "method" [since] it is an ongoing protest against the myth of "methodology": notably that

"techniques" for thinking out a process can be separated from the process itself." [Murray Bookchin, *The Philosophy of Social Ecology* (Montreal: Black Rose Press, 1990), p. 174.] However, one could possibly argue that the very fact that the dialectical approach has been used by Hegel, Marx and Bookchin himself to interpret very different processes indicates that it can be used *and* as a method. In fact, another passage from the same book (written more recently) seems to agree with this position: "dialectic is in effect both a way of reasoning about causality and, simultaneously, an account of the objective world." (p. 26)

[5] *See* D.W. Hamlyn, *The Theory of Knowledge* (Macmillan, 1970), pp. 117-26, and, also, F. Copleston, *A History of Philosophy* (Search Press, 1976), Vol. IV.

[6] Although, as modern versions of the theory have shown, it is certainly not always the case that every statement can be correlated with a fact. (Hamlyn, *The Theory of Knowledge*, pp.132-36.)

[7] Thomas Kuhn, *The Structure of Scientific Revolutions* (University of Chicago Press, 1970), pp.191-98.

[8] The introduction of the fact/value dichotomy, far from creating the conditions for a "value-free" science of the economy, not only helped enormously in creating the myth of scientific "objectivity" but, also, as Murray Bookchin observes, denied speculative philosophy the right to reason from the "what is" to the "what-should-be", i.e., its right to become a valid account of reality in its "truth". *See* Bookchin, *The Philosophy of Social Ecology*, pp. 156, 175

[9] See I. Lakatos's "Falsification and the Methodology of Scientific Research Programmes" in Lakatos and Musgrave, *Criticism and the Growth of Knowledge* (Cambridge University Press, 1970), pp. 93-103.

[10] H. Katouzian, *Ideology and Method in Economics* (Macmillan, 1980), p. 53.

[11] Lakatos's article in Lakatos and Musgrave, *The Growth of Knowledge*, p.100.

[12] As Lakatos observes, if we accept the falsificationist criterion, then all probabilistic theories, together with Newton's, Maxwell's and Einstein's theories, have to be rejected as unscientific, since no finite number of observations can ever disprove them. (Lakatos and Musgrave, *The Growth of Knowledge*, p. 103.)

[13] P. Feyerabend, "Consolations for the Specialist" in Lakatos & Musgrave, *The Growth Knowledge*, pp. 197-231

[14] Feyerabend, *Farewell to Reason*, p. 9.

[15] Hamlyn, *The Theory of Knowledge*, p. 140.

[16] M. Masterman, "The Nature of a Paradigm" in Lakatos and Musgrave, *The Growth Knowledge*, pp. 59-91.

[17] Kuhn, *Scientific Revolutions*, p. 175.

[18] P. Feyerabend, *Science in a Free Society* (Verso, 1978), p. 66.

[19] "The choice between competing paradigms cannot be determined merely by the evaluative procedures characteristic of normal science, for these depend in part upon a particular paradigm and that paradigm is at issue."(Kuhn, *Scientific Revolutions*, p. 94.) Although Kuhn, in his later writings (*see,* e.g., his postscript in later editions of his book and also his contribution in Lakatos & Musgrave), under pressure from Popperians, Lakatos et al., seems to be retreating in his definition of the scope of the paradigm concept, and he ends up with a narrower concept, not very dissimilar to the Lakatosian SRP, I believe it is the broad sense that is the most original one and, anyway,the version that is predominantly retained by most readers of his book, as Blaug [M. Blaug, *The Methodology of Economics* (Cambridge University Press, 1980), p.30] observes.
[20] Feyerabend, *Farewell to Reason*, p. 8.
[21] The division between the orthodox and marxist paradigms is based on the assumption that, despite the significant differences between the various schools of thought which could be classified in the two paradigms (especially those in the orthodox camp, i.e., neo-classicals, Ricardians, Keynesians, monetarists, etc.), still, there is a fundamental common characteristic in the respective groups of theories: all orthodox theories take the capitalist system for granted, whereas all marxist theories see capitalism as a historical phase in the evolution of human society. Out of this fundamental difference arise all other differences between orthodox and marxist theories about concepts and methods to be used in the analysis of economic phenomena.
[22] L. Goldmann, *Immanuel Kant* (New Left Books, 1971), p. 19.
[23] Goldmann, *Immanuel Kant*, p. 53.
[24] Murray Bookchin, "Recovering Evolution: Reply to Eckersley and Fox," *Environmental Ethics*, Vol. 12 (1990), p. 2 (reprinted in this issue of *Society and Nature*).
[25] Castoriadis, *L' Institution Imaginaire*, pp. 49-50.
[26] B. Hindess and P. Hirst, *Pre-Capitalist Modes of Production* (Routledge & Kegan Paul, 1975), pp. 313-23. *See also*, A. Cutler, B. Hindess et al., *Marx's Capital and Capitalism Today* (Routledge & Kegan Paul, 1977), Ch. 4.
[27] Castoriadis, *L'Institution Imaginaire*, pp.76-84.
[28] The famous 11th thesis of Marx on Feuerbach: "The philosophers have only interpreted the world in various ways, the point however is to change it." Karl Marx, *Theses on Feuerbach*.
[29] In fact, for an important school of modern marxism, that is, Althusser's structuralist marxism, an *epistemological break* (a leap from a preBscientific to a scientific worldview) should describe Marx's shift from his early philosophical/humanist writings to his late (post 1845) scientific ones.
[30] G. McLennan, *Marxism and the Methodologies of History* (New Left Books, 1981/1987), p. 22.

[31] G. Lukacs, *History and Class Consciousness* (Merlin Press, 1971), p.1.
[32] McLennan, *Methodologies of History*, p.15.
[33] Castoriadis, *L'institution Imaginaire,* pp.13-20.
[34] Quoted in McLennan, *Methodologies of History*, p. 167.
[35] George Lukacs, "Technology and Social Relations," *New Left Review*, No. 39 (1966), p.33.
[36] "Objective truths are not uncovered so much, as created; it is in the act of creating them that they become revealed." Peter Binns, "The Marxist Theory of Truth," *Radical Philosophy*, No. 4 (Spring 1973), p. 5.
[37] Binns, "The Marxist Theory of Truth," p. 8.
[38] A. Collier, "Truth and Practice," *Radical Philosophy* (Summer 1973), p. 10.
[39] L. Kolakowski, *Marxism and Beyond*, p. 59, quoted in Collier, "Truth and Practice," p. 10.
[40] It is not accidental that Marx himself, as Castoriadis has shown, had to abstract from the class struggle in deriving his "laws" of motion of capitalism, because only in that way could he develop a scientific theory of socialism. The class struggle is absent in his process of deriving scientific laws and reappears again only at a different level of analysis: at the level of bringing down a system whose essential nature has been demonstrated by abstracting from it (Castoriadis, *L'Institution Imaginaire*, pp. 40-45).
[41] The view sometimes expressed by marxist writers (*see,* e.g., P. Sweezy, "Toward a Critique of Economics" in his *Modern Capitalism and Other Essays* [Monthly Review Press, 1972]) that the class character of marxian economics does not call into question its scientific validity, because the latter depends entirely on its ability to explain reality, obviously begs the question, as there is no "objective" way to decide which paradigm better explains reality.
[42] *See* for a critique of this position McLennan, *Methodologies of History*, p. 15.
[43] *See* L. Kolakowski, *Main Currents of Marxism* (Oxford University Press, 1981), Vol. 1, p. 181.
[44] In Lenin's *Materialism and Empiriocriticism*, the account of knowledge given by the author is too close to simple empiricism, as McLennan points out (*Methodologies of History,* p. 11).
[45] It is, for instance, well known that the marxist theory of value does not meet the requirements of a scientific hypothesis, according to the criteria of verifiability/falsifiability. That is why some marxists [*see*, e.g., N. Morishima and G. Catephores, *Value, Exploitation and Growth* (McGraw-Hill, 1978), p. 297] attempted to solve the problem by suggesting (on the basis of Marx's spare writings on methodology) that value, as well as "all specifically marxian laws and developmental constructs," should be treated as Weberian ideal types. However, as Weber points out (M. Weber, *The Methodology of Social Sciences* [Illinois, 1949], Ch. 1), the function of an ideal type is

always the comparison with empirical reality and therefore the problem of the guarantee of the ideal type's truth still remains unresolved. For a further critique of this solution, from a different viewpoint, *see* Kolakowski, *Currents of Marxism*, pp. 315-16.
[46] Kolakowski, *Currents of Marxism*, p. 323.
[47] McLennan, also, agrees with this classification: "as it affects substantive issues in historical materialism Althusser's project can be described as «rationalism»." (McLennan, *Methodologies of History*, p. 28.)
[48] L. Althusser, *Reading Capital* (New Left Books, 1970), p.52-56.
[49] Althusser, *Reading Capital*, p. 59.
[50] McLennan, *Methodologies of History*, p. 27.
[51] McLennan, *Methodologies of History*; *see*, also Binns, "Theory of Truth."
[52] Binns, "The Theory of Truth," p. 8.
[53] *See* R. Bhaskar, *A Realist Theory of Science* (Leeds Books, 1975); McLennan, *Methodologies of History*; and for a meta-marxist critique of this approach, *see* N. Mouzelis, *Post-Marxist Alternatives, The Construction of Social Orders* (MacMillan, 1990).
[54] Bhaskar, *Realist Theory of Science*, p. 250.
[55] As Bhaskar puts it, a theory T_a is preferable to theory T_b, even if in the terminology of Kuhn and Feyerabend is incommensurable with it, if theory T_a can explain under its descriptions almost all the phenomena $p_1 \ldots p_n$ that T_b can explain under its descriptions $Bp_1 \ldots Bp_n$ plus some significant phenomena that T_b cannot explain (Bhaskar, *Realist Theory of Knowledge*, p. 248).
[56] The criteria that McLennan (*Methodologies of History*, p. 32) mentions to support the "objectivity" of social inquiry (theoretical abstraction, systematic and coherent theoretical explanations at a number of levels, explanation of concrete phenomena by causal and other sets of propositions) do not provide any solution. Two paradigmatic theories, for example, the neoclassical and the marxist economic theories, could perfectly satisfy all the above criteria, but in the absence of experimental activity the problem of choosing between them remains unresolved.
[57] Mouzelis, criticising realist marxism from a different perspective, argues that marxist theory is unable to overcome the dilemma "essentialism or empiricism" irrespective of the epistemological position adopted (Mouzelis, *PostBMarxist Alternatives*, p. 29).
[58] The debate between Bookchin and Fox/Eckersley is a clear example of incommensurability. See Bookchin, "Recovering Evolution."
[59] Feyerabend, *Farewell to Reason*, p. 75.
[60] Cornelius Castoriadis, "The End of Philosophy?" in *The Talks in Greece* (Athens, 1990), p. 23.
[61] Feyerabend, *Farewell to Reason*, p. 59.
[62] *See* Castoriadis, *The Era of Generalised Conformism*.
[63] Castoriadis, *The Era of Generalised Conformism*.

[64] Even Feyerabend, a strong supporter of relativism, does not go as far as to adopt philosophical relativism. *Science in a Free Society*, pp. 82-83.
[65] Arne Naess "Deep Ecology and Ultimate Premises," *The Ecologist*, Vol. 18, Nos. 4/5 (1988), reprinted in this issue of *Society and Nature*.