Closing the Open Systems: The "Double Hermeneutics" in Economics

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Abstract

The starting point of the present paper is the criticisms by Roy Bhaskar directed to the Humean conception of causality as constant conjunctions of atomistic events, as the basic characteristic of "closed system" theorizing. On the basis of these criticisms, the importance of "open systems" in the social world is emphasized and the implications of this fact with respect to economics will be explored. It is argued in the paper that because of the ubiquity of open systems in the social world, economics, which essentially adopts a "closed-system" thinking, is forced to direct its energy to "close" the real world itself by creating and/or changing the institutional structure within which the theory is developed. In order to show that this "double hermeneutics" is an integral part of economics, three cases from the history of economic thought will be examined: Polanyi's understanding of the market system as created by a conscious attempt of the liberal thinkers, Keynes's views and the creation of the "welfare state," and Schumpeter's insight for the institutionalization of the "creative destruction" by devising an appropriate corporate environment, i.e., research and development activities. The basic argument of the paper is then straightforward: the "vision" to be adopted by economics should consider the importance of open systems in the human realm.

Keywords: Critical Realism, Double Hermeneutics, Closed Systems, Open System

> ...the ideas of economists and political philosophers, both when they are right and when they are wrong, are more powerful than is commonly understood. Indeed the world is ruled by little else. Practical men, who believe themselves to be quite exempt from any intellectual influences, are usually the slaves of some defunct economist. Madmen in authority, who hear voices in the air, are distilling their frenzy from some academic scribbler of a few years back. (Keynes 1936: 383)

Introduction

Although the above quotation from Keynes's *General Theory* sounds like a "conspiracy theory," Marx too, together with his asserting in his famous Eleventh Thesis on Feuerbach that "the Philosophers have only *interpreted* the world, in various ways; the point is to change it" (Marx 1975: 423), seems to join Keynes when he says: "But theory also becomes a material force once it has gripped the masses" (Marx 1975: 251). In other words, social philosophers and economists are not only concerned with understanding or interpreting the world, but also with devising such "conspiracies" directed to change the world itself. The starting point of the present paper is this obvious fact that economists have always been concerned with changing the "rules" of the game that they try to understand or explain. As Roy Bhaskar and Anthony Giddens warn us, the social science, and economics for sure, is internal to the world it tries to understand, for it always seeks to affect or even transform its "subject matter" by conscious attempts. In the paper, the necessity of this attempt to transform institutional structure is argued to be caused by the ubiquity of "open systems" prevailing in the social world. That is, "closed-systems" in the sense of the existence of "constant conjunctions," a term by David Hume, existing among brute, atomistic events never hold in the human realm. Yet, economics, even if it is characterized by "closed-system" theorizing, is forced in the face of complexity of the world to direct its energy to "close" the real world itself by creating and/or changing the institutional structure within the boundaries of which the theory is supposed to work. In order to show that this "double hermeneutics," a term by Giddens, is an integral part of economics, three cases from the history of economic thought are examined: Polanyi's understanding of the market system as created by conscious attempts of liberal thinkers and economists; Keynes's views and the creation of the "welfare state," and Schumpeter's insight for the institutionalization of the "creative destruction" by devising an appropriate corporate environment, i.e., through research

and development activities. The choice of these examples is by no means accidental; the basic assumption uniting all these three is the fact that the market system, since the very beginning, has always required active interventions of different agencies; even the system itself can be said to be a "project" which is designed by economists (and social philosophers) and implemented by continuous state interventions. Later, in another conjunction of history in which the very existence of the system is in danger, Keynes's solution, characterized by the "welfare state" which guarantees the accumulation process, and Schumpeter's insight that the "creative destruction" process can be controlled institutionally, through research and developments implemented by big corporations, all appear as conscious attempts to close the system so as to guarantee its success. In order to show this, the paper first deals with the analytical framework devised by Bhaskar and, to a lesser extent, by Giddens, and then focus on the issue of the "ontological closure" on the part of economists.

1. Positivism and Critical Realism

Roy Bhaskar's, transcendental realism (TR), or, as he calls later, "critical realism" (Bhaskar 1975, 1989, 1993, 1994), asserts that "the objects of scientific thought are *real structures* irreducible to the events they generate." (Bhaskar 1991a: 458) In this view the "explanatory structures" or "generative mechanisms" are a) *ontologically* distinct from, b) generally "out of phase" with, and c) sometimes in opposition to the phenomena that they generate (Bhaskar 1991a: 458). In this conception, the world is constituted by mechanisms rather than events. Then, the task of science is to attain to the knowledge of those enduring and continually active mechanisms of nature (Bhaskar 1975: 47). Bhaskar's develops his critical realism as opposed to the positivist vision of science, which he takes as based on two principles: First, *the principle of empirical invariances* (laws are or depend on empirical regularities); and second, *the principle of instance confirmation* (laws are confirmed or falsified by their instances) (Bhaskar 1989: 124). This view adopts the Humean theory of causal laws which assumes the existence of constant conjunctions of events (Bhaskar 1975: 12). In the Humean conception, causal laws can be described with the formula "whenever event X, then event Y." In other words, "same cause, same effect" applies everywhere (Bhaskar 1975: 141). Since causal laws are considered as empirical regularities, they are reduced to sequence of events, and the events to experiences (Bhaskar 1989: 15). Therefore, Humean view is

based on an implicit ontology which supposes the existence of constant conjunctions of discrete, atomistic events. Consequently, a particular conception of man is underpinning to this view: Men are seen as passive sensors of given facts and recorders of their constant conjunctions, rather than active agents in a complex world (Bhaskar 1975: 198). An extension of this view, especially with respect to social science, is methodological individualism. Therefore, according to Bhaskar, positivist approach is based on a "trinity": Empirical realism, which is based on Humean causality view, *epistemic fallacy* which assumes that statements about ontology (about being) can always be reduced into statements about epistemology (about our knowledge of being) (Bhaskar 1975: 16) and sociological/methodological individualism.

Opposing to this view of science, Bhaskar's critical realism represents two important shifts in philosophy of science (1991b:140). First, within ontology, a switch from events to mechanism; and second, within philosophy, a switch from epistemology to ontology. This view can best be characterized as "ontologically bold and epistemologically cautious." (Bhaskar 1989: 176) In this regard, though scientific activity can be seen as a rational and progressive one in the sense that the aim of science is to reach the knowledge of real structures/mechanisms, we cannot be sure whether we can fully know the reality for it is stratified and constitutes a complex set of open systems.

Critical realism proposes that there are two dimensions and kinds of object of scientific knowledge. A *transitive* dimension in which knowledge is seen as a social product, produced by means of knowledge, and an *intransitive* dimension in which the object of knowledge is the real structure or generative mechanism (Bhaskar 1975: 16). The transitive objects are the "raw" materials of science: They include previously established facts and theories, paradigms and models, methods and techniques available to a particular scientific school or worker (Bhaskar 1975: 21). On the other hand, intransitive objects of knowledge are real structures that exist and act independently of human beings (Bhaskar 1975: 16). The aim of science is to achieve the knowledge of these structures and generative mechanisms. These objects are intransitive in the sense that they exist and act quite independently of all human activity, and structured in the sense that they are distinct from the patterns/sequences of events that occur (Bhaskar 1975: 35). And contrary to Humean account, lawlike statements are the statements that describe the operation of these mechanisms, not statements about experiences or events (Bhaskar 1975: 17). According to Bhaskar, any adequate philosophy of science must

regard both of these aspects of science; It must be capable of integrating both the social character of science and the independence of science from the (intransitive) objects of knowledge (Bhaskar 1975: 23). For example, positivists who regard the existence of constant conjunctions as necessary and sufficient for causal laws are criticized on the grounds that they omit this social character of science, whereas "transcendental idealists" regards only the social aspect of knowledge, accepting that the models and theories are imaginary and imposed upon reality. In Bhaskar's words, transcendental realism

> regards the objects of knowledge as the structures which endure and operate independently of our knowledge, our experience and the conditions which allow us access to them. Against empiricism, the objects of knowledge are structures not events; against idealism, they are intransitive.
> ...
> According to this (TR) view both knowledge and the world are structured, both are differentiated and changing; the latter exists independently of the former (though not our knowledge of this fact); and experiences and the things and causal laws to which it affords us access are normally out of phase with one another. (Bhaskar 1975: 25)

TR view is based on an ontological claim: The generative mechanisms and structures are ontologically distinct from the events that they generate; and further, the pattern of events are also ontologically distinct from experiences. In other words, the domains of the 'real', the 'actual' and the 'empirical' are distinct (Bhaskar 1975: 13). This proposition can be expressed with the formula, $D_r \geq D_a \geq D_e$ (Bhaskar 1975: 229). For Bhaskar, this ontological distinction is the answer to the "transcendental" question "*what must be the world be like for science to be possible?*" (Bhaskar 1975: 22) To him, it is not science that imposes a determinate pattern or order on the world, but the order of the world makes science possible. Despite the fact that the world can only be *known* with science, it is not *determined* by science. Thus, "propositions of ontology, i.e. about being, can only be established by reference to science." (Bhaskar 1975: 30)

In the empirical realist view, these three ontologically distinct entities are collapsed into one; or with the formula, $D_r = D_a = D_e$. The reason for this is that the empirical realism always assumes the existence of *closed* systems. If constant conjunctions of events prevail, or equivalently, events of type a are invariably followed by events of type b, we can say that a closure has been obtained (Bhaskar 1975: 73). If there is no constant conjunctions of events, the system is said to be *open*. In the

empirical tradition, according to Bhaskar, causal laws only applies to closed systems. Behind this view, what Bhaskar calls "classical paradigm of action" lies (Bhaskar 1975: 79). This paradigm adopts a *corpuscularian* or atomistic view of matter and a *mechanical* view of causality in which all causes are regarded as efficient and external to the thing in which change occurs. These views defines a 'limit condition' of a closure (Bhaskar 1975: 79). In this paradigm, atomicity is perceived as either a physical, identified by size, or an epistemological, identified by simplicity, entity; and these atoms are the basic building blocks of knowledge (Bhaskar 1975: 82). The essential features of the classical corpuscularian/mechanical world view are (Bhaskar 1975: 83);

1. Causation is external to the matter,
2. Effects are immediate and matter is passive,
3. Fundamental entities (whether corpuscles, events or sense data) are atoms,
4. There is no complex internal structure,
5. There is no pre-formation or material continuity,
6. There is no objective basis for transformation and variety in nature (they are "secondary qualities").

These features imply a particular model of men; Men are passive sensors of events. In addition to, or more accurately conditioned by, this world view a *reductionist* approach in the sense that some higher order entities, properties or powers can be (a) based on, or (b) explained by, or (c) predicted by some lower order (microscopic/atomistic) ones is assumed (Bhaskar 1975: 114-15).

In sum, a natural closure, a mechanistic conception of action and the model of men as passive sensors underlies the doctrine of actuality of causal laws: Laws are relations between events which are thought as the objects of actual or possible experiences (Bhaskar 1975: 64).

By contrast, TR asserts that closed systems are encountered only rarely, and open systems are rule rather than exception in the world. In open systems, laws can only be universal if they are interpreted in a non-empirical (*transfactual*) way, as demonstrating the operation of generative mechanisms and structures independently of any pattern of events they generate (Bhaskar 1975: 14). It is characteristic of open systems that two or more, maybe radically different kinds of, mechanisms are at work at the same time to produce some particular effects. (Bhaskar 1975: 119). In other words, the laws of nature are subject to the possibility of 'dual' or 'multiple' control including control by human

agents (Bhaskar 1975: 113). Therefore, we cannot rely on empirical generalizations as lawlike statements because of the openness of the world.

The complexity of the world requires a conception of lawlike statements as *normic* or *transfactual* (nonempirical) statements which make assertions about structures that lies behind the events and experiences (Bhaskar 1975: 102). In this conception, laws must be treated as *powers* and *tendencies*. A power (or a liability –'passive power') refers to the capability of a thing to do (or to suffer from) something in virtue of its nature (Bhaskar 1975: 175): "To ascribe a power is to make a statement about possibilities which may not be actualized and which are possessed by the thing whether or not they are known by men; so powers cannot be reduced to their exercise or our ignorance" (Bhaskar 1975: 231). And a tendency is defined as "a power which may be exercised unrealized, a power normically qualified." (Bhaskar 1975: 229) Since the real basis of causal laws are provided by generative mechanisms, these structures and mechanisms must be analyzed as tendencies and powers enduring and transfactually acting (Bhaskar 1975: 229). But these powers/tendencies need not be exercised in order to ascribe them as laws: They "may be possessed unexercised, exercised unrealised, and realised, unperceived (or undetected) by men; they may also be transformed." (Bhaskar 1975: 18) On the other hand, laws do not describe patterns of events, rather they impose limits on these patterns. That is, besides the fact that possibilities ascribed by laws may not be realized, laws impose necessities which constrain but do not determine, because the underlying mechanisms may not, and generally do not conform with the events (Bhaskar 1975: 106).[1]

The prevalence of open systems in nature makes the experimental activity necessary (Bhaskar 1975: 91). An experiment is an attempt to "close" the system, or to isolate a particular mechanism by keeping of all other potentially effective mechanisms. In an experiment, two essential actions are made. First, experimenter triggers the mechanism under study to ensure that it is active (*experimental production*), and second, she must prevent any interference with the operation of the mechanism (*experimental control*) (Bhaskar 1975: 53). To the extent that the sequence of events emerging under experimental conditions would not be emerging without it, experiment is necessary. In this sense, experimenter is a "causal agent"[2] of the sequence of events, not of the causal laws. These sequence enables to the experimenter to identify that law. Consequently, there is an ontological distinction between laws and sequences of events (Bhaskar 1975: 33). In other words, experimental activity can only be given a rationale if the causal law

that experiment enables us to identify prevails outside the context in which the sequence of events is generated. This view implies that causal laws operate in open systems, and closed systems must be established experimentally (Bhaskar 1975: 33). Therefore experiment is a significant feature of science.[3] Once laws are identified or theories are tested in closed experimental conditions, they can be applied outside these conditions. However, as Chalmers (1988: 19) points out, the use of the term "cause" in the experimental context is not unambiguous. The sequence of events under the experiment is caused by the generative mechanisms, not by the experimenter. However, "the ontological argument works only if the experimenter is taken to be the cause of the sequence of events, as opposed to experimental setup, an idealist assumption quite out of keeping with Bhaskar's realism." (Chalmers 1988:19). Bhaskar, against this ciriticism, argues that (Bhaskar 1989: 171-72) the experimenter's activity is a necessary condition of the experimental setup, S. S includes necessary conditions for the operation of the mechanism, M. And S is itself, together with M, is a necessary condition (or "co-cause") for the sequence of events E_a,E_b. Therefore, experimenter must be a causal agent in the sense that without her activity, S and hence E_a,E_b would not have occurred. However, this does not mean to deny that S might have emerged without the activity of experimenter, as in some astronomical contexts. The setup might have occurred without the agent, and the mechanisms exist and act independently of both the agent and the setup. In short, according to Bhaskar, his "ontological argument is sound" (Bhaskar 1989: 172).

Accepting the complexity of the world and the dominance of open systems requires the acknowledgement of the fact that the primary aim of scientific activity is to explain phenomena at hand, because these phenomena are produced by the generative mechanisms and structures. The world is generally constituted with open systems, so that it is *differentiated* or *stratified* between distinct kind of mechanisms (Bhaskar 1975: 119). Then, scientific knowledge must move from one *stratum* to another. Since in open systems more than one generative mechanisms may be at work simultaneously, the explanation of these mechanisms must be stratified. In other words, the stratification of explanation reflects a real stratification in the world which is unbounded in the sense that scientist can never know whether a level of stratification is the ultimate stratum (Bhaskar 1975: 170-171).

The necessity for categorical distinctions between structures and events and between open systems and closed ones are indices of stratification and differentiation of

the world. These distinctions are presupposed by the intelligibility of experimental activity (Bhaskar 1975: 29). And this ontological distinction between mechanisms and events enables us to make a distinction between *necessary* and *accidental* sequence. While in the empiricist tradition the "surplus element" which distinguishes a necessary sequence from an accidental one (Bhaskar 1975: 149) is supposed to be supplied by mind (Bhaskar 1989: 15), in the TR this "surplus element" is the underlying mechanism. The concept of natural necessity is the concept of a real generative mechanism at work (Bhaskar 1975: 180). A sequence E_a,E_b is necessary if and only if there is a natural mechanism M such that when stimulated by the event E_a tends to produce E_b (Bhaskar 1975: 19; Bhaskar 1989: 10). If we can have knowledge of such mechanisms then we can have knowledge of natural necessity *a posteriori*.[4]

Bhaskar's TR account is developed mainly for natural sciences. Then, an interesting question is whether this account which may be relevant for natural sciences is also relevant for social (or in general human) sciences, or, in Bhaskar's words, "*to what extent can society be studied in the same way as nature*?" (Bhaskar 1989: 1). It is this question we now turn to.

2. Ubiquity of Open Systems in the Social World and the Limits of Naturalism

The primary issue here for Bhaskar is whether *naturalism* in the sense that there is an "essential unity of method" between the natural and the social sciences is possible or not. Naturalism can be said to have two different variants. First, *reductionism* which asserts that the subject matter of both kinds of sciences are actually identical; and second, *scientism* which denies the existence of any significant difference between their methods, irrespective of the issue that whether or not their subject matters are identical (Bhaskar 1989: 2). Opposing to both of these types Bhaskar tries to develop a "qualified" (or a "new critical") naturalism, on the basis of his TR account, in his *The Possibility of Naturalism* whose main argument is that "the human sciences can be sciences *in exactly the same sense*, though *not in exactly the same way*, as the natural ones." (Bhaskar 1989: 159) That is, there is an essential unity of method, though both the subject matters and the methods may be significantly different, arising from real differences between objects of two group of sciences. However, these differences do not

prevent the possibility of human sciences; on the contrary, *just in virtue* of these differences, social science is possible (Bhaskar 1989: 3).

Again, with respect to the possibility of social science, two traditions can be distinguished: *Positivist* tradition which argues the unity of method even if society may be much more complex than the natural world (interactionism), and *hermeneuticist* tradition which denies the possibility of social science in the same sense with natural science (Bhaskar 1989: 17).

The Positivist tradition, as mentioned above, seeks empirical invariances between discrete, atomistic events. Another tenet of this approach is the methodological individualism which asserts that the facts about society and social phenomena can be explained in terms of facts (decisions, actions etc.) about individuals (Bhaskar 1989: 27; 1978:5). Most methodological individualists, according to Bhaskar, regards "the social" as a synonym for "the group." Then, the primary issue for them is that whether society, the whole, is greater than the sum of individuals, its constituent parts (Bhaskar 1989: 28; 1978:6). Methodological individualism is the doctrine that the facts about societies, and social phenomena generally must be explained solely in terms of individuals (Bhaskar 1989: 27; Little 1991: 183). In this doctrine, social institutions are just abstract models based on the facts about individuals. This approach consists of three related but distinct theses; namely, the *ontological thesis* stating that all social entities are reducible without remainder to logical compounds of individuals; the *meaning thesis* stating that social concepts must be *definable* in terms of concepts that refer only to individuals and their relations and behavior; and the *explanation thesis,* stating that there are no autonomous social explanations; instead all social facts and regularities must ultimately be explicable in terms of facts about individuals –their motives, powers, beliefs, and capacities (Little 1991: 183-188). Even though the ontological thesis is true, that is, society is made up or consists of people and the material presence of social effects consists only in changes in people and changes brought about by people on other material things (Bhaskar 1989:30), we can also assert that individuals and society (or social structures) are ontologically distinct from and irreducible to each other. Yet in neither case the ontological thesis implies the theses about meaning and explanation (Little 1991: 200). The meaning thesis, on the other hand, makes sense if the facts refer only to individuals and their psychological properties. But there is no reason to think that such a reduction is possible. To begin with, facts about individuals always make reference to social contexts. The predicates

designating properties special to persons all presuppose a social context for their employment. Secondly, the facts about individuals are not necessarily either more observable or easier to understand than social facts, and the facts applicable to individuals are not necessarily either clearer or easier to define than those that designate social phenomena (Bhaskar 1989: 28). Returning to the explanation thesis, we can assert that there are some *emergent* properties of societies irreducible to the dynamics of individuals. We can see that methodological individualism is a special case of the view known as "reductionism." Reductionism asserts that 1) it is possible to provide a rigorous specification of a hierarchy of entities, from higher to lower ones, and hence rank any pair of domains, and 2) the entities and laws of higher levels can be reduced to facts about entities and laws at lower levels (Little 1991: 191). In this framework, then, some higher order entities, properties or powers can be based on or explained by some lower order (atomistic) ones. However, reductionism as a research strategy in social sciences is likely to fail, because a successful example of a reduction (in the sense of explaining an entity with a lower order one), such as the reduction of chemistry to physics, requires a prior existence of a well developed body of knowledge in the domain of the to-be-reduced science. However, in human sciences such body of knowledge generally does not exist (Bhaskar 1989: 98-99). Therefore, such a perspective which rests on the "closed system" thinking, do not have the explanatory power for the human behavior.

On the other hand, the other alternative is the *hermeneutic* social theory which is based on the notion of "understanding." As is well known, hermeneutics, from the Greek word *hermeneus*, "interpreter," had arisen as efforts to interpret the Biblical texts. Later it was to become the name of a specific social theory which asserts that society is essentially conceptual in character and social life does not exist independently of the concepts about how individuals perceive it. This social theory asserts that social world must be understood from within, rather than explained from without; that is, social science should be concerned with the clarification of meaning and conceptual connections. Although the term "meanings" of the actions is an ambiguous term ranging from what is consciously and individually intended to what is communally and often unintendedly significant (Hollis 1994:17), the method of social sciences is taken as *conceptual* and their central category as *meaning* whereas the method of natural sciences is *empirical* and their central category is *causality* (Bhaskar 1989: 134-35; Winch 1958: 95).[5] The aim in social science is not to include

human action under a causal law, but to discover the *rules* (or goals or meaning) which guide the action and render it meaningful. And the effort for understanding these rules requires *interpretation*. In other words, hermeneutic approach treats social phenomena as a text to be decoded through imaginative reconstruction of the significance of the various elements of the social action (Little 1991: 68). For example, according to Peter Winch, a leading Hermeneuticist, social sciences are concerned with meaningful, or "rule following" behavior and they must be based on the understanding of the rules which constitute the forms under study (Winch 1958: 51-52).[6] Because of this difference in the social sphere, hermeneuticists, following Max Weber, make a sharp distinction between causal explanation (*erklären*) and "interpretative understanding" (*verstehen*) and thus between science of physical non-human world of nature and the science of the mind, culture, and the history (Winch 1958: 95, 111). Social phenomena can only be rendered intelligible, they cannot be explained in a causal framework. The principle of *verstehen* is both necessary and sufficient method for the social scientific endeavor (Bhaskar 1989: 135).

Having rejected causal explanation as an appropriate category in social science, hermeneutic theory may proceed along two possible lines (Hollis 1994, pp. 18-19): *(1) Holistic or "top down"*: The games absorb the players. If actors, at least in their social capacities, desire, believe and therefore do only what is socially expected of them, then they need no separate understanding. If, for instance, they are solely the bearers of social roles, which derive entirely from determinate social positions and dictate all that role-players do, then the method of understanding can proceed exactly as the explanation which would proceed in a pure systems-theory adopting a "structuralist" position. *(2). Individualist or "bottom up"*: If meanings are subjective first and intersubjective only by mutual accord, an opposite account of understanding is needed. The players construct the games of social life, perhaps in the spirit of the social contract, or of the idea of unintended consequences, often postulated to account for economic, moral, or political order.

Therefore, in the hermeneuticist tradition, society is entirely conceptual in character and social life does not exist independently of the concepts about how individuals perceive it (Bhaskar 1989: 134). However, the unifying principle of both the positivist and hermeneuticist views is the assumption that empirical invariances are necessary for causal laws (Bhaskar 1989: 17).

According to Bhaskar, positivist tradition is right when it is stressing that there are causal laws at work in the social life, and these laws may be opaque to the agents' perceptions (Bhaskar 1989: 21). But it is in mistake in seeing laws as empirical regularities in the closed systems, for social sphere is always constituted with open systems. On the other hand, the hermeneuticist tradition is correct to stress that social reality is pre-interpreted, and thus cannot be independent of agents interpretations, so that *verstehen* is a condition for social science (Bhaskar 1989: 159). In other words, the relation between human sciences and their subject matter is in the form of a "subject-subject" (or concept-concept) relationship rather than simply a "subject-object" (or concept-thing) one (Bhaskar 1989: 21). However, this tradition omits that there are real social structures or, in this case, *relations* which are of relative independence of individuals.

The "Critical Naturalism" developed by Bhaskar sees science, like the positivists, as unified in its essential method; and, like the hermeneuticists, as essentially differentiated in its object (Bhaskar 1989: 18). For him, though both the predicates and the procedures in the explanation of social phenomena are different from those of natural phenomena, the principles governing the explanation process are substantially same. (Bhaskar 1989: 20). This naturalism conceives causal laws as expressing the tendencies of things rather than constant conjunctions, and the production of knowledge requires a conceptualization based on the notion of powers: For the realm of social, "things are viewed as individuals possessing powers (and as agents as well as patients). And things are structured and differentiated (more or less unique) ensembles of tendencies, liabilities and powers; and historical events are their transformations." (Bhaskar 1989: 19)

The idea of critical naturalism requires a shift in the methodological standpoint which in turn implies a different ontology and account of social science (Bhaskar 1989: 19). In order to elucidate the ontological differences of social reality from the natural one and the possibility of social science, Bhaskar then turns to the ontological question "*what properties do societies and people possess that might make them possible objects of knowledge for us?"* (Bhaskar 1989: 13)[7]. Bhaskar tries to give an answer to this question in the context of sociology.

In general, four different conceptions or models for society can be distinguished (Bhaskar 1989: 31-37). The first is the "Weberian stereotype" in which methodological individualism is predominant and social objects are seen as the result of intentional or

meaningful human behavior. In the second, "Durkheimian stereotype," the emphasis is on the concept of group, different from the notion of group conceived by methodological individualism. In this *collectivist* conception, society exist independently of human activity ("Reification"); social objects possess a life of their own, external to individual. A third model which tries to synthesize these two models is based on the assumption that there exists a dialectical interaction between people and society. In this "Dialectical model," people and society are the two moments of the same process; social structures are not independent of human activity that produces them; but once created they become as alien entities to people. In other words, society is an *externalization* of men: Social systems are *objectivations* which refer to the process in which human subjectivity embodies itself in products as elements of an external world. In the objectivation process, man establishes a distance from his producing and its product, so that he can make these products as objects of his consciousness (Bhaskar 1989: 32-33).

Opposing to these models, Bhaskar develops a fourth model which denies the dialectic relationship between people and society (Bhaskar 1989: 33-34). They refer to radically different kinds of thing. Although society cannot exist without human activity and such activity cannot occur unless the agents engaging in it has a conception of what they are doing (an hermeneutical insight), it is not true to assert that man *creates* it. Rather, people *reproduce* or *transform* it. Since society is *already made*, any concrete human activity or praxis can only modify it. In other words, society is not the product of their activity but it is an entity never made by individuals though it can exist only in their activity (Bhaskar 1989: 33).

On the other hand, conscious human activity can be made only in given objects, that is, it always expresses and utilizes some previously existing social forms. Besides the fact that society is irreducible to the individual, it is a necessary condition for any intentional human activity. In other words, society and human praxis both have a dual character; Society is both the material *cause* and the continually reproduced *outcome* of human agency (*duality of structure*); and praxis is both conscious *production*, and normally unconscious *reproduction* of the conditions of production (*duality of praxis)* (Bhaskar 1989: 34-35).

This distinction between people and societies leads to the distinction between intentional human activity and changes in the social structure. Human action is characterized by intentionality and the capability of monitoring and controlling their performances. This capacity of monitoring also applies to monitoring activity itself; man

has a "second-order monitoring" capability which makes a retrospective commentary about actions possible (Bhaskar 1989: 35).

However, intentionality and self-consciousness does not apply to transformation of social structure because the properties of society and individuals are strikingly different from each other. In this framework, people, when they are acting consciously, generally unconsciously reproduce and sometimes transform the structures governing their activities. For example people do not marry to reproduce the nuclear family or work to retain the capitalist economy, but unintended consequences of their actions leads to reproduction. From this, we can see that the change in social structures cannot be explained on the basis of agents' desires, though these desires may impose important limits on the change (Bhaskar 1989: 35).

In sum, Bhaskar's "transformational model" asserts that people do not create society for it already exists and is a necessary condition for human activity. Society must be regarded as an ensemble of structures practices and positions which individuals reproduce and transform. But these structures cannot exist independently of their actions. The process of establishing necessary conditions for the reproduction and/or transformation is called by Bhaskar as *socialization*. This process refers to the fact that, though society is only present in human action, human action is always made in the context of social forms. However, neither can be reduced to or explained in terms of the other (Bhaskar 1989: 37). On the other hand, this transformational model, by allowing the human agency, regards necessity in social life as operating via the intentional activity of man in the last instance (Bhaskar 1989: 36).

With respect to the problem of the contact between structures and human agency, the fact that social structures are continually reproduced and exercised only in human agency requires a mediating system linking action to structure, which must endure and be occupied by individuals. This systems is that of the *positions* (places, functions, rules, tasks, etc.) occupied (filled, implemented, established etc.) by individuals, and of the *practices* (activities etc.) in which they engage (Bhaskar 1989: 40-41). And this "position-practice" (or positioned practice) system can be constructed rationally for only relations between positions. Some of these relations are *internal* and some of them are not. "A relation R_{AB} is internal if and only if A would not be what it *essentially* is unless B is related to it in the way it is." (Bhaskar 1989: 42) R_{AB} is *symmetrically internal* if the same applies also to B. For example, the relationship between bourgeoisie and proletariat is symmetrically internal; traffic-warden state is asymmetrically internal; passing

motorist-policeman not in general internal. Internality of relations are especially important with respect to the *stratification*: Although most social phenomena can be explained in terms of a multiplicity of causes, their explanation must be based on a *totality* of real aspects, bearing internal relations between these aspects. In this framework, social sciences can be stratified such that different sciences deal with the structural conditions for particular types of social activity (Bhaskar 1989: 44).

Still, in order to find an answer to the question of the possibility of naturalism, we must examine whether the properties of social structures are different from those of the natural ones. For Bhaskar, there are significant differences, and these differences impose some limits on a possible naturalism, namely *ontological, epistemological*, and *relational* limits.

First of all, social structures, unlike natural ones, can only exist in the activities they govern and they cannot be empirically identified independently of these activities. In the social activity people both make the social products and reproduce/transform the structures. In other words, social structures are themselves social products, and are subject to transformation and therefore they are only relatively autonomous. The property of society as an ensemble of relatively independent and enduring generative structures which are subject to change means that society "is an articulated ensemble of tendencies and powers which, unlike natural ones, exist only as long as they (or at least some of them) are being exercised; are exercised in the last instance via the intentional activity of men; and are not necessarily space-time invariant." (Bhaskar 1989: 39) And these ontological limits imply that social scientific explanation is necessarily incomplete for there is always possibility that better explanations are replaced with the previous ones, depending on the development of the social structures that take place (Bhaskar 1989: 48). Therefore, the ontological limits on a possible naturalism are (Bhaskar 1989: 38);

1) Social structures do not exist independently of the activities that they govern whereas natural ones do (*activity-dependence*)[8].
2) Social structures do not exist independently of the agents' conceptions about what they are doing in their activity, whereas natural ones do (*concept-dependence*).
3) Social structures may be only relatively enduring; they are not, unlike natural structures, space-time invariant (*space-time dependence*)[9].

However, the dependence of social structures upon their effect, or the unperceivable character of the society (concept-dependence) poses no epistemological difficulty for naturalism. Rather, the *epistemological limits* for naturalism is posed by the fact that social objects only manifest themselves in open systems in which empirical invariances cannot be obtained[10] (Bhaskar 1989: 45). However, since closed systems cannot be obtained generally in natural sciences also, this fact does not arise difficulties specific to social sciences. We can only say that relatively decisive test situations or, equivalently, the experimental activity is not possible in social sciences. Also, it is not possible to formulate social processes merely in quantitative terms, both because the existence of ontologically irreducible processes requires qualitative rather than merely quantitative concepts and because the conceptual aspect of the subject matter prevents measuring for meanings can only be understood, not measured (Bhaskar 1989: 46). Therefore, statistical techniques as ways of providing closure are not adequate in social work (Bhaskar 1989: 174).

Turning to the relational limits of naturalism, a primary difference of social sciences from the natural ones is that social science is *internal* to its subject matter whereas natural science is not. That is, given the internal complexity and interdependence of social activities, the objects of scientific inquiry do not exist independently of, or even may be affected by, the social science itself. In other words social (and in general human) sciences are themselves aspects and even causal agents of what they are trying to explain (Bhaskar 1989: 47). On the other hand, social science is also affected by the developments in society and with this regard a new development in society can be conceptualized only long after the development itself[11]. This relationship between the development of the object and the development of the knowledge also requires the sociology of knowledge (or investigation in the transitive dimension) approach. Just as the impossibility of social science without society, society cannot exist without some kind of scientific, proto-scientific and ideological[12] set of ideas (Bhaskar 1989: 48).[13]

As a matter of fact, this point of Bhaskar captures the same idea with what Anthony Giddens calls the "*double hermeneutic*." On this conception, the social world is constituted by both the actions of the actors and the "metalanguages" invented by the social sciences (Giddens 1984, 284). In other words, social science is not only affected by society, but at the same time an effective agent in shaping society; that is, social science is internal to its "subject matter" in a way natural

science is not. That is to say, the findings of the social science has the property of "self-fulfilling prophecies," in the sense that they "cannot be kept wholly separate from the universe of meaning and action which they are about (Giddens 1984: xxxii-xxxiii). They can also have the effect of creating institutional structures in which they could be "true." It is this aspect of the social scientific discourse that we turn now.

3. "Ontological Closure" and Economic Theory: Design of Social Institutions

The "double hermeneutics" can be said to be an essential aspect of the social science. Yet this point, especially in economics, do not seem to have drawn the attention it deserves. To be fair, economists usually recognize the fact that social science is an effective agent in shaping the society, but only in terms of the effects of economic policies implemented. But the double hermeneutics, it can be argued, works at a much deeper level, i.e., the level of institutional transformation.[14] That is to say, economists have not only concerned with explaining the working of the market system, but also with the institutional transformation of it. In this regard, it seems that what they have tried to achieve, was not, or still is not, merely to explain the world in which open systems prevail, but to "close" it, so to speak. That is, if there are no constant conjunction operating in the world, they could be "fabricated" through the transformation of the institutional structure within which certain relations and even certain types of behavior are allowed to work. Such transformations, it seems reasonable to assert, seem to provide analogues to the experimental activity in the natural sciences. Two most prominent examples in this regard seem the creation of the very market system through a "Great Transformation" (Polanyi 1944), and the creation of the "Welfare State" institution based on the theory provided by Keynes (1936). These two examples clearly shows the transformative power of economics.

Economists, since Adam Smith, if not since Bernard Mandeville, have been concerned with the emergence of the idea of an "order." Although in economic discourse this order appears as a "spontaneous" one, to use Hayek's term, which emerges by the working of an "invisible hand," to use this time Adam Smith's term, according to Polanyi, the "self-regulating" market, or capitalism, was actually the result of deliberate attempts, as designed by the political economists, and implemented by the power of the state.

The market system, according to Polanyi, is characterized by two related features: the creation of the "commodity fictions," that is, labor, land and money become "commodities," which gave rise to a separate "economic" sphere for the first time in human history, and the reflection of this institutional separation in people's minds, "the market mentality," or more accurately, economic determinism. The market economy is a unique and peculiar economic system in the human history; never before capitalism has the economic sphere been institutionally separated from the rest of the society, in the specific sense that the economic system is *disembedded*, i.e, it stands apart from the society, more particularly from the political and governmental system. In such an economic system, based on "the" market referring to a self-regulating market system in which each individual market is connected to the other and sets its own price without any outside intervention, the whole of economic life is to be governed by the market prices on the basis of the "motive of gain and the fear of hunger" (Polanyi 1944: 43). Thus, the institutional separation of the economic and political spheres is a key to understand this society, for a "self-regulating market demands nothing less than the institutional separation of society into an economic and political sphere. Such a dichotomy is, in effect, merely the restatement, from the point of view of society as a whole, of the existence of a self-regulating market" (Polanyi 1944: 71).

This institutional separation of the economic sphere from the political is a result of the creation of the *"fictitious commodities,"* that is, labor, land and money, all of which must be subjected to sale in the market in order for the market economy to function, even though they are not produced in the same sense as the production of the other, genuine commodities. For what we call "labor" is nothing but the whole of human life activity, whereas what land as a "factor of production" indicate is nothing but nature itself (Polanyi 1944: 72-75). In other words, their treatment as commodities means that the entire society must become subordinate to the market. Under such a system human beings for their own survival need to buy commodities on the market with the incomes they earn by selling other commodities they could offer for sale, including their own labor power and natural environment, land.

According to Polanyi, the institutional separation between the economic and political spheres is "merely the restatement, from the point of view of society as a whole, of the existence of a self-regulating market" (Polanyi 1944: 71). This dichotomy presupposed four institutions, two of which were economic in character

and the remaining two were political: while the self-regulating market and the gold standard formed the economic sphere, the "liberal" state and the balance of power system formed the political. However, since the self-regulating market is the dominant institution within this setting, all other institutions, namely the gold standard and the balance of power system within the international sphere, and the state within the domestic, to use another taxonomy, must be at the service of the market institution (Polanyi 1944: 3). That is to say, these three institutions are to be characterized by their functionality: They exist by virtue of their roles in facilitating the working of the market smoothly.

Polanyi continuously emphasizes the fact that in the emergence of such an institutional structure, the role of conscious design was crucial. The market economy as a "project," designed by the liberals and implemented by the state interventions, is a prevalent theme throughout *The Great Transformation*. According to him, "there was nothing natural about *laissez-faire*; free markets could never have come into being merely by allowing things to take their course" (Polanyi 1944: 139). An "enormous increase in continuous, centrally organized and controlled interventionism" was necessary, in order to "make Adam Smith's 'simple and natural liberty' compatible with the needs of a human society," (Polanyi 1944: 140). To this end, the most suitable means was the state. In fact, the significance of the state in the establishment of the market system with continuous and conscious interventions was actually one of the cornerstones of the liberal doctrine itself:

> Of the three things needed for economic success –inclination, knowledge, and power– the private person possessed only inclination. Knowledge and power, Bentham taught, can be administered much cheaper by government than by private persons. It was the task of the executive to collect statistics and information, to foster science and experiment, as well as to supply the innumerable instruments of final realization in the field of government. Benthamite liberalism meant the replacing of Parliamentary action by action through administrative organs (Polanyi 1944: 139).

The state has always been important for the market from the very beginning. In fact, its significance in the establishment of the market system with continuous and conscious interventions was so prominent that the assertion that "the liberal economic order was designed by the early English political economists and was instituted by the power of state" (Polanyi-Lewitt 1995: 10-11) is not an excessive one. With respect to

the "institutionalization" of the market economy, three acts were of utmost importance: the Poor Law Reform Act of 1834, in establishing the labor market for the first time; the Bank Act of 1844, in establishing the principle of gold standard; and the repeal of the Corn Laws in 1846, in establishing the principle of "free trade." These acts correspond to the three tenets of economic liberalism upon which the market economy was established. Yet it should not be forgotten that these three tenets formed one whole; the achievement of one of them was useless unless the other two were secured too:

> Thus, the Anti-Corn Law Bill of 1846 was the corollary of Peel's Bank Act of 1844, and both assumed a laboring class, which, since the Poor Law Amendment Act of 1834, was forced to give their best under the threat of hunger, so that wages were regulated by the price of grain (Polanyi 1944: 138).

In other words, the institutionalization of capitalism was completed with these three acts, the most important of which is, of course, the establishment of the labor market. Such a proposition suggests that capitalism arrived too suddenly; Polanyi emphasizes the abruptness of the change. According to Polanyi, economic liberalism created a novel system by integrating more or less developed markets:

> Besides continuous growth from small beginnings, there is also a very different pattern, that of discontinuous development from previously unconnected elements. The "field," in which such sudden change as the emergence of a new, complex whole occurs, is the social group under definite conditions. These discontinuities broadly determine both what ideas and concepts gain currency with the members of a group and at what rate. But once disseminated, these ideas and concepts permit change at an enormously accelerated rate, since the patterns of individual behavior can now simply fall into line with the new general pattern preformed by those ideas and concepts. Formerly unconnected elements of behavior thus link directly up in a new, complex whole, without any transition (*LM*, liii-liv).

Therefore, if Polanyi's thesis is accepted, the economic theory (including its Neoclassical variant), seems to explain the working of a mechanism which actually contributed to emerge. In this sense, the *homo oeconomicus*, the agent of the Neoclassical tale, is actually a "constituted" entity, emerged as a result of the market system. Yet, such a designing role played by economics is by no means limited to the

emergence of the market system. It has been effective for its later, "welfare" phase as well.

Keynes, in an article he wrote on the *General Theory* in 1937, argues that he had two main grounds for his departure from the orthodox "Classical" theory, namely the principle of effective demand, and the principle of uncertainty (Keynes 1973: 122-23). As is well known, the first, revolutionary aspect of his work depends on this principle, which is considered as a sum of two components, propensity to consume and investment (Keynes 1936: 25-36). If Z is the aggregate supply price of the output from employing N workers, then the Aggregate Supply function will be $Z= \mu (N)$; and D is the proceeds which entrepreneurs expect to receive from proceeds which entrepreneurs expect to receive from the employment of N workers, then the Aggregate Supply function will be $D = f (N)$. The value of the aggregate demand function at the intersection of aggregate demand and supply schedules, the effective demand, is the sum of propensity to consume and investment: $D = D_1 + D_2 = \mu(N)$. Here, whereas $D_1 = \beta(N)$ denotes for consumption, investment is expressed as a "residual": $D_2 = \mu(N) – \beta(N)$. That is to say, the equilibrium level of employment will depend on the aggregate supply function μ, propensity to consume β and the volume of investment D_2. Since investment is expressed as a residual, the volume of employment and therefore production can be said to be determined primarily by the propensity to consume, which is a "psychological law" beyond the control of any agency. On the other hand, the volume of investment depends upon the future prospects of the profitability of investment (the marginal efficiency of capital), which in turn depends on the expectations of the investors, determined primarily in the capital markets, depending on the "*state of confidence*," i.e., the psychology of the actors within these markets (Keynes 1936: 148). This confidence, in turn is determined by convention prevailing in the market, whose essence lies at the assumption "the existing state of affairs will continue indefinitely, except in so far as we have specific reasons to expect a change." (Keynes 1936: 152). Nevertheless, because of uncertainty, this confidence may and will undergo drastic changes. Uncertainty in Keynes refers to a state in which there is no way to calculate mathematical probabilities or expectations (Keynes 1936: 152; Lawson 1985: 915; Hamouda and Smithin 1988: 160-61), which is different from the notion of "risk" in which probability distributions are possible to assign (Hamouda and Smithin 1988:

162). Whereas "the game of roulette is not subject, in this sense, to uncertainty," says Keynes,

> the prospect of a European war is uncertain, or the price of copper and the rate of interest twenty years hence, or the obsolescence of a new invention, or the position of private wealth owners in the social system 1970. About these matters there is no scientific basis on which to form any calculable probability whatever. We simply do not know. (Keynes 1973: 113-14)

Yet because of practical necessity, we need to act on the basis of the assumption that the present is a good guide for the future, in order to form our expectations regarding future. And, not only marginal efficiency of investment, but also the liquidity demand function will depend on such a "flimsy foundation," for "our desire to hold money as a store of wealth is a barometer of the degree of our distrust of our own calculations and conventions concerning the future" (Keynes 1973: 116). This convention will be subject to drastic changes because of a "sudden fluctuation of opinion due to factors which do not really make much difference to the prospective yield" (Keynes 1936: 154). Then, both the interest rate and the volume of investment, depending on this "convention," fluctuate, and it is quite natural for the volume of investment, and therefore employment to fluctuate as well (Keynes 1973: 118). That is to say, for each expectation level, there corresponds a different Marginal Efficiency of Investment (and different interest rate) schedule in Keynes. However, when the expectations fluctuate in a drastic way because of the market psychology, the volume of investment, and thus the employment and income levels will become indeterminate.

Of course, such a picture of the capitalist accumulation process is quite disturbing, because "when the capital development of a country becomes a by-product of the activities of a casino, the job is likely to be ill done" (Keynes 1936: 159). Under these circumstances, capital accumulation will come to depend on the "animal spirits –of a spontaneous urge to action rather than inaction" (Keynes 1936: 161) of capitalists. "This disturbing conclusion" according to Keynes, "depends, of course, on the assumption that the propensity to consume and the rate of investment are not deliberately controlled in the social interest but are mainly left to the influences of *laissez-faire*" (Keynes 1936: 219). Then, since capital accumulation is "determined by psychological and institutional conditions" (Keynes 1936: 217), the solution is

obvious. What is needed is "a somewhat comprehensive socialization of investment" (Keynes 1936: 378), that could guarantee full employment and the continuity of capital accumulation. The solution, as we know, devised for this is the "welfare state."

As the above discussion regarding the institutionalization of the market system reveals, the state has always been an important actor for the market system; it is not only necessary to establish the system, but also essential for reproduction of the system as a whole. In a capitalist society, the state plays a dual role: while it is the governing organ of the ruling classes, it also claims to represent the whole society. Then, on the one hand, since the state, or the bureaucracy, represents the whole society, it functions to protect the "interest" of the society as a whole, that is, it takes measures to protect the society from the destructive effects of the market mainly through its redistributive role, but, on the other hand, since even the very existence of the state depends upon capital accumulation in a capitalist society, it is no mystery that the state would promote capitalist relations by all means.[15] In this regard, it should be noted that state's centralized power, which actually is a result of the fact that the state has the monopoly over the means of violence in capitalist societies, gives it a unique position in both enforcing and protecting property rights and the formation of money and the credit system (Giddens 1986: 152-54). It can be asserted that the modern "welfare state" is a more "peaceful" way to maintain the separation between the economic and the political spheres. That is to say, this postwar institution, the "social contract" with the workers in the form of full employment and comprehensive welfare (Kapstein 1996: 16-17),[16] has been devised as an "economic" solution in order for the social tensions between classes not to develop and take the form of opposition to the market system itself. In other words, welfare state represents a "'great compromise' between the requirements of capitalist production and the needs of society" (Lipietz 1997: 118).[17]

Giddens (1994: 136-37) identifies three structural sources of welfare state: 1) enforcing labor contracts; 2) creation of national solidarity in the nation-state building process; 3) management of risk, especially in the form of Keynesian policies. These three aspects seem to function to protect capitalist production process, displaying the "economic" character of the capitalist society once again. On the other hand, with respect to the risk management function, it is possible to assert that the modern corporation too can be seen as an institution fulfilling the needs of the accumulation process in a stable environment, for the "principal animus behind the corporate

revolution is to urge stabilize and control the exigencies of the corporate environment, and these exigencies are largely the uncertainties concomitant to the operation of the market mechanism" (Stanfield 1986: 119). That is to say, the basic function of the so called "monopoly capitalism," is actually to stabilize the market system by creating such a corporate environment in which there are far fewer agents to negotiate, with the other two most important actors, i.e., the state and trade unions, so as to achieve a suitable environment for accumulation. Such a setting will alleviate

Still, there may be another function of the big corporation in this setting. In a sense, big corporations can be seen as an efficient way to institutionalize Schumpeter's famous "creative destruction" process. For Schumpeter, the "bourgeois Marx," capitalism is an inherently a dynamic system in which the accumulation of capital always requires to find new methods of production, new forms of industrial organization, new methods of transportation, and new markets (Schumpeter 1942: 83). That is, the accumulation process is characterized a creative destruction process in which economic structure is revolutionized from within, in the form of the destruction the old one so as to give rise to a new one (Schumpeter 1942: 83). As is well known, the key for this creative destruction is the notion of innovation. However, with respect to innovation process, Schumpeter seems to have undergone a fundamental change of opinion. Whereas in his earlier works (e.g., Schumpeter 1911, 1939), he argued that innovative activity comes from small firms operating in highly competitive industries, in his later work, *Capitalism, Socialism and Democracy* (1942), primary source of this activity comes from large firms operating in highly oligopolistic industries.[18] In the former book, the principal driving force behind innovations is the entrepreneur, who constantly introduces new inventions in the production process in order increase his or her profits. in the latter, it is the institutionalization of modern Research and Development laboratories which guarantees accumulation. in the first case, the entrepreneur appears as a *deus ex machina*, i.e., it is external to the system; that is to say, once again, the accumulation depends on the caprices or, the "animal spirits," if we be permitted to use Keynes's expression, of the entrepreneur. Yet, just like Keynes's case, it is very disturbing to leave the survival of the system into the hands of the entrepreneur. Then, a natural solution which could "close" the theory of accumulation is to institutionalize this process through research and development activities, for they will ensure the

continuity of innovations in a setting in which the creation of innovations becomes a routine carried out by specialists.

Therefore, it seems that the basic function of this new order in which welfare state, trade unions and big corporations plays the crucial role was to stabilize the accumulation process. Following Keynes, if the accumulation of capital is under the threat of instability emanating from uncertainty, then the best way to create the preconditions of accumulation process, is to devise an institutional structure in which there are three basic parties; the workers, organized around big trade unions who needs concessions, in the form of full employment and comprehensive welfare spending, the state that monitors the "social contract" among these two parties and supporting business through government contracts, and the big corporation. In this "tripod" model, uncertainty could be reduced, and the accumulation process could be "institutionalized."[19] Such an institutional design, has proved successful for a long time in establishing a continuous accumulation process.

Conclusion

If the "conspiracy theory" devised in this paper makes any sense, then traditional opposition existing among economists between the social scientific activity and its subject matter, and the resulting controversy between the "absolutist" and the "relativist" positions concerning history of economic thought (Blaug 1992: 1), should be revised in a radical way. If everyone of us is a "slave of a defunct economist," this relation should be considered as a dynamic one because of the hermeneutic element manifesting itself on different levels. First, the social (or economic) world itself is constituted by the category of "meaning" which guides the actions of individuals. Second, at a deeper level, the social science itself is an active agent that participates in the constitution of this world. This double hermeneutics, as a general hypothesis, can shed light on the process of reproduction and/or transformation of the society, or of different structures and institutions in it. Yet, the existence of open systems in the human realm makes this task a very difficult one. The only promising way, it seems, is to adopt an interdisciplinary attitude towards the subject matter of economics, the market system, for its working depends on many contradictory elements.

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Notes

[1] At this point, it is possible to distinguish between structures and generative mechanisms. Although in the *Realist Theory of Science* Bhaskar uses them as if they are synonyms, later, in the "Postscript" to the *Possibility of* Naturalism, he explains the difference between them (Bhaskar 1989: 170). Generative mechanisms refer to the causal powers of structured things. Such things either a.) just *are* the causal powers, or b.) more generally they *possess* these powers. Only in the first case structures and mechanisms are same. With this distinction it is possible a.) that the same mechanism may underlie a plurality of distinct structures, and b.) that the same structure may be reproduced (or transformed) by the joint activity of a number of different mechanisms.

[2.] Anything which is capable of bringing about a change in something (including itself) is an agent (Bhaskar 1975: 109). In this framework, cause refers to both the antecedent event, condition or agent which triggers a mechanism itself (Bhaskar 1989: 171). In other words, "if and only if it is the case that actually prevailed but (for the operation of) X, then we are justified in calling X a cause of E, whether or not we know the mechanism at work." (Bhaskar 1989: 101).

[3.] Of course this does not mean that theory is of no importance. Any experiment must be backed by a theory. By changing Kant's phrase, Bhaskar states that "theory without experiment is empty. Experiment without theory is blind" (Bhaskar 1975: 191). Yet, he argues that at least in the historical development of sciences experiment and theory are "out of step" (Bhaskar 1975: 191). From this, it is possible to distinguish between two distinct phases of scientific enterprise; the moment of theory in which closed systems are established artificially as a means of access to the enduring mechanisms; and the open-systemic applications in which the results of theory are used to explain, predict and diagnose the phenomena (Bhaskar 1975: 118). Scientific discovery and/or change and application, though both are necessary, need not occur together; nor do they occur in chronological order (Bhaskar 1975: 191-92).

[4] In open systems, then, the explanation process must be different from the positivistic one which presupposes Humean notion of causality. Bhaskar's own models for explanation process, i.e., for theoretical explanation, the DREI(C) model which consists of Description, Retroduction, Elimination, Identification and Correction processes; for applied explanation, the RRREI(C) model, which consists of the Resolution, Redescription, Retrodiction, Elimination, Identification, and Correction processes, and the Practical explanation model DEA model, which consists of the Diagnosis, Explanation, and Transformation, are developed in Bhaskar (1992: 398). However, this explanation process lies out of the scope of the present paper.

5. For a brief introduction to hermenutical social theory, see (Little 1991, pp. 68-69). One of the best formulations of the hermeneutic social theory is given by Taylor (1985).

6. Winch in fact follows Ludwig Wittgenstein with respect to the definition of "rules." Wittgenstein's *Philosophical Investigations* uses the notion of a "game" in discussing human action. The rules of a game not only regulate how it is played but, more importantly, define or constitute the game itself. Moves in a game have meaning only within the rules, as, for instance, words have meaning only within a language and within practices of communication (Hollis 1994:18). For a critique of Winch's ideas, see Bhaskar (1989: 132-52).

[7.] Actually, there are two questions, one ontological and the other epistemological, here. First (ontological) is the question of properties that societies possess, and the second (epistemological) is the question of how these properties make them possible objects of knowledge for us. Only after answering the first question, it is possible to answer to the second one (Bhaskar 1989: 25).

[8.] But later, Bhaskar argues that the activity dependence property do not hold as long as; (i) the activities governed by structures may not be those which sustain these structures, and (ii) they are internally related to other structures which are reproduced/transformed in human praxis. Thus, as long as a structure of power is sustained by human practices, it can be reproduced without being exercised. In this setting, social structures exist and are carried or transported from one space-time location to another only by human praxis (Bhaskar 1989: 174).

[9.] Actually, they are *more* space-time specific than some kinds of natural, such as biological, structures (Bhaskar 1989: 176).

[10.] The impossibility of obtaining empirical regularities or closed systems in social sphere implies that social science must be explanatory, not predictive (Bhaskar 1989: 45-46).

[11.] This aspect of social development requires a conception of history in which transformations always occur. In other words, history must be continuously rewritten (Bhaskar 1989: 48)

[12.] A set of ideas is characterized as ideological if both (a) it is false, that is one has a superior explanation for the phenomena in question, and (b) it is more or less contingently necessary, that is one has an explanation of the falsity of the beliefs in question (Bhaskar 1989: 62).

[13] Nevertheless, these limits for a possible naturalism, according to Bhaskar, do not pose serious problems for social scientific explanations. In the process of theory construction in social sciences, scientist first has to identify the object of inquiry. But fortunately, because of the *concept-dependent* nature of social activities, most of the phenomena with which scientist has to deal are already identified in terms of some descriptions or nominal definitions of social activities as some proto-scientific or ideological sets of knowledge (Bhaskar 1989: 49). Then, the task is to redefine them and to attempt to reach some real definitions. Such a real definition serves as a closure; without this definition, any hypothesis about the causal mechanism will be more or less arbitrary. After having a real definition, then, some causal hypothesis about the mechanism which is subject to empirical scrutiny must be constructed. The problem becomes now how to establish a (non-arbitrary) procedure for locating real structures. Here, *activity-dependence* of social structures, that is, the mechanisms in society can only exist in their effects, comes to the scene (Bhaskar 1989: 50). In this regard, social scientific discourse should be concerned with particular mechanisms and relations at work in some identified social context. In other words, social activities should be conceptualized in experience or in *praxis*. In other words, "theory fuses into practice." (Bhaskar 1989: 53) The conclusions reached by this discourse will be necessarily historical, not formal (since the structures are *time- space-dependent*), and subject to empirical investigation and some *a priori* controls (Bhaskar 1989: 50).

[14] According to Bhaskar, periods of transition or crisis can yield an analogue for the experimental activity in natural sciences. It is possible to argue that in these periods, generative mechanisms that are formerly opaque become more visible to the agents in society. These social transformations lead both to emergence of a new theory and to subsequent developments in existing theories. For example, it is not an accident that Marxism was born in the 1840s, a period with great changes in capitalist world. These kinds of periods, though they cannot yield a closure, may be helpful in bringing new changes in social science (Bhaskar 1989: 48).

15. The contradiction between these two functions of the capitalist state, ie., between "legitimization" and "accumulation," has been examined by a number of authors, such as O'Connor (1973) and Wolfe (1977). According to this framework, the state must fulfill these two contradictory demands, that is, it must create the conditions for both accumulation and social harmony. However, the state's use of its coercive force openly to help one class to ensure capital accumulation at the expense of the others would undermine its legitimacy (O'Connor 1973: 6).

16. According to Kapstein, the nation-state is abandoning the working people exactly at a time when they need the state most as a buffer from the world economy in its globalization phase, and he argues that in order for the political support for the globalization phenomenon continue, this social contract should not be broken (1996: 17)

[17] According to Lipietz, the "'Fordist Compromise' consisted of matching mass production and mass consumption" (1997: 117).

[18] According to Paul Sweezy, this change of opinion actually dates to 1928, in Schumpeter's article "The Instability of Capitalism" that appeared in the *Economic Journal*. From this article on, the exclusion of the entrepreneur from the process of innovation through routinized practices of specialists, appears as a basic change in capitalism's *modus operandi* (quoted in Bottomore 1985: 36-37).

[19] Of course, such attempts to close systems overlook human agency, that is, the transformative power of human beings. With respect to the relation between social structures and individual human action, as Bhaskar's transformational model for social activity implies, it is always the case that reproduction of social institutions, relations and structures, even those created by deliberate design, always contradictory. For such contradictions in the market system, see Özel (1997). For the contradictions of the welfare state, on the other hand, see Habermas (1973), O'Connor (1973), Wolfe (1977), Offe (1984). These contradictions reveal the fact that in the human realm, we only have "open systems."