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New Epistemological Framework of Social Sciences; Materialist Oriented Critical Realism

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Crisis in the social sciences also started crisis of existence epistemological premises of social theories. It can be argued that recent social theories vary in their way of looking at social realities but all these varied social theories constitute (what Clocke et.al label) a post-positivist unified rejection of positivist epistemology. Hence, deconstruction creates conditions in which rationalism, empiricism, and their offspring are criticized violently. Epistemological differences can be classified with different names but it can not possible to mentions all variant ideas in these poor pages. I concerned with only matter which reflection of my own struggles.

In these stages of reconstruction of social theories created several ways of epistemological view point. These differences were produced ideological, political and scale oriented problems. In spite of all these varied way of epistemological differences, these study focused on review of three more important epistemological explanations; post-modernist, realist and historico-materialist epistemology. In spite of my tendency which is ***historico-materialist epistemology***, it is difficult to make a pure classification among these epistemological differences. Post-modern epistemology start withs problem of the subject and object opposition, in other words, classical problem of philosophy, "how we know, what we know?". Getting knowledge in these relations related "either in the form of the subject's concepts (rationalism) or sensual things to be experienced and only then known (empiricism)."In these epistemological points truth is the idea that knowledge, rationality appropriates truth. Truth is contained as the essence of the objects of discourse. Knowing is the process by which a potentially omniscient, rationally subject can extract the essence of a thing- its truth- in the form of discourse about it" (Amariglio, 1990, 23). Amariglio developed a post-modernist epistemology through which he criticizes positivism and their way of getting knowledge as positivism blends empiricism and rationalism but goes further than both by postulating a necessary language through which scientific proposition must be posed if they are to be meaningful (i.e., potentially verifiable or falsifiable). This language is a formal construct borrowed for the most part from symbolic logic and other axiomatic systems" (Amariglio, 1990, 23) Who maintains that "recent positivist approaches abandon this search in favor of the language of universal logic. Thus formalism that characterizes positivist approaches in the sciences and in economics is founded on the premise that in the language of analytic logic, one can find the basic discursive principles of truth, clarity, consistency, elegance, and noncondraction." Amariglio argued that positive epistemology only represent modernism, and like the all modernism, this epistemology sees itself as having discovered the underlying formal principles of scientific language and the correct protocols -the necessary technological means- of scientific method (Amariglio, 1990). Post-modernist critic of positivist epistemology is mainly produced critics of modernism and its understanding of knowledge as a structure of essentialist, unique and universal . In spite of all these critics, post-modern epistemology is far from being acceptable epistemology, because the post-modernist epistemology, and ontology, the reality and its way of knowledge more fragmented, unstable. Thinking about systematic and world level dynamics disappear. In addition, what İ.Tekeli argued that, post-modernism can not produce social theories and not produce imagination of future (Tekeli,1994).

Historico-Materialism as Research Program Before identifying the features of historico-capitalist research program it is necessary to consider how it defines science. It is well known that Marx described science as "a

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process of producing knowledge by going behind the superficial appearance of things; but [that] all sciences would be superfluous if the outward appearances and essence of things directly coincided." (Fine and Harris ,1979,6). In spite of this simple and well known definition, it is difficult to go behind superficial appearances. Fine and Harris suggest that the tasks of science comprise; first, phenomena which lie behind the appearances (or the concepts of these phenomena) are not simply there, waiting to be found. Starting from experience of the *complex world of appearances* and from existing scientific and ideological attempts to understand this experience, science has the task of producing the concepts appropriate to these hidden phenomena. And, secondly, science does not simply remain at the stage of conceptualizing the hidden essential phenomena; its task is to produce knowledge of how they determine and give rise to the phenomena which are apparent, observable and conceptualized in everyday experience" (Fine and Harris ,1979,6) Hence, it can be argued that the knowledge of social structures is the process connecting the concrete-real to thought-concrete. This well known formula can be defined as a processes of Concrete-Abstract-Concrete (C-A-C or better C-A-C')" circle of materialist epistemology with its 'determinate rational abstractions', thus effecting a transition from *'hypostasis to hypothesis,* from *a priori* assertions to experimental forecasts" (Bhaskar, 1989, 144). These experimental and open materialist epistemology turnout self-consciously critical, because of its empirically controlled dynamic processes. Thus, it can be argued that historico-materialist epistemology is an empirically open-ended research program.

In spite of the empirically self-criticizing process, historico-Marxist research program clashes with empiricism that science, concepts and explanations of which are generalizations of empirical phenomena rather than abstraction of some explanatory "essence" of these phenomena. Or it can be defined as a the conception of a singular (absolute) truth of given reality.(Finch,1983,607, see also Resnick and Wolfe,1990,57). In the Marxist theory, empirical phenomena is analyzed with ***abstract*** or ***theoretical categories.*** In *Grundrisse*, Marx describes it , as starting from the complexity of the superficial world and constructing the most simple, highly abstract concept. Therefore, historico-materialist research programs "use abstract categories rather than empirically based concepts, which apparently correspond to the reality, and it draws these categories from its theory of the development of capitalism." (Fincher, 1983, 608). The structure of the epistemology of Marxism, hence, is defined as a continuous oscillation between abstract and dialectical development and concrete historical reality. Marx clarifies the matter. According to Marx this 'though product', or concentration of abstract categories; "the concrete [*das Konkrete*] is concrete, because it is the concentration of many determinations, hence, the principle of the unity of the diverse. It appears in the process of thinking [*im Denken*], therefore, as a process of concentration, as a result, not as a point of departure in reality and hence also the point of departure for intuition [*Anschauung*] and conception. Along the first path, the full conception was evaporated to yield an abstract determination which leads towards a reproduction of the concrete by way of thought." (Fincher, 1983, 609, (quoted from Marx)). These categories can not defined as rationalist tools, because like empiricist, rationalists accord a privileged place to their concepts of the governing cause, logic, origin, or origin of their concrete-real, also rationalists see an absolute truth. Resnick and Wolf argue that, for marxian theory, "rationalist conceive of their concrete-real that has a unique truth- understood as a cause, logic, origin, or telos- that can be captured or expressed in a thought-concrete, that is, rationality. All thinking is presumed to aspire to express such a truth; alternative thought-concrete are critically ranked according to their approximation to such a truth. (Resnick and Wolf, 1990, 57).

On this basis, Marxist epistemology is radically different from traditional epistemologies, "Marx sets himself against both the idealist ontology of forms, ideas or notions with its conceptual. (or religious) totalities and the empiricist ontology of given, which claim that we exist, as a possible object of knowledge for us" (Bhaskar, 1989, 135).

Methodological Tools of Historico-materialism Now I am going to consider the problem concerning the empirical operationalization of historico-materialist epistemology. This is a recurrent theme in Marxian methodological literature.

In spite of its advantages Marxist epistemology, there as always a gap between the general level of abstraction and empirical appearances. This stems directly from the hostile attitude of early Marxist students to-

wards quantitative research techniques because "they believe that these tools of inquiry dehumanize people, presume a view of humankind as passive, exaggerate the predictability of human behavior" (Vailancourt, 1986, 122, quotation from Gramsci)

Also the surveys and interviews are often cited as examples of quantitative research techniques that are impersonal and alienating for the interviewed. It is also claimed that in these conventional survey techniques people's opinion is assumed to undergo a very slow change and that they take for granted that individuals act predictably. Vailancourt also cites some other criticisms;

(i)-The social survey and small groups methods, and socimetry are reductionism because they assume that an understanding of the whole can be obtained by adding up the constituent parts.

(ii)-These research technics ignore the historical aspect of reality,

(iii)-Research tools are also condemned because such technics assume objectivity as a goal,

(iv)-It is criticized as not only a positivist and empiricist but it is deterministic and anti-dialectic. (Vailancourt, 1987, 141-3).

Such are also Althusser's arguments for rejecting the research tools of contemporary social science, and qualitative subjective research techniques of philosophers. When these Marxists do research, they opt for macro-level analysis/macro-level structures.

After the radical transformation in the social formations, these abstract and general arguments became untenable and incapable for any relevant understanding new historical/social realities. Social dynamics have created radically different structures, events and mechanisms, hence over the last decade, there has been renewed concentrations in the historico-materialist Marxist research tradition. First and most important reaction is for creating lower level abstractions. Hence theoretical formation takes place at the following levels:

(a)-The level of the mode of production, such as 'capitalism' or 'feudalism'

(b)-the level of the *general concrete*, a specific arrangement of relations of the mode of production with particular contradictions in dominance, like as competitive, monopoly, global sub-modes.

(c)- the level of the ***a specific concrete*** which is claimed to constitute an empirical reality. (Fincer, 1983, 610).

At this stage, the problem relates to the analysis of the *specific concrete*. Historico-materialists claim that; while abstract model of capitalism, by providing the necessary concepts, is an aid to analysis , D.Massey writes 'it cannot substitute for the analysis itself'. Hence Marxists intended to provide the basis for much more specific framework. (Gregory, 1990, 76). In this framework, materialists argue that none of the research techniques of contemporary social science can be included as such in the materialists' repertoire which intends to shed light on *the whole*, but materialists argue that these research techniques do, to varying extends, provide information that can be used to describe and predict what is going on at a higher level if the person doing research makes this priority. This means that they accept the research strategies of modern social science with an awareness of the limitations involved. (Vaillancourt, 1986, 155-156).

This tendency is completed by ***critical realist school*** which is defined as a reconstruction of dialectical materialism so that it preserves the best of the Enlightenment tradition but incorporates the verities of twentieth century developments in social theory (Thrift,1987,405). Lovering believes that critical realism has a constructive role to play in Marxist thought. (Lovering, 1990, 31).

Critical realism, hence, provides us with insights on the organizing social theory as a network which combines both epistemology and methodology or "events and structures." This understanding leads realists, and consequently historical materialists, to reject two routes to theory development. First, simple enumerative induction, generalization on the basis of observed regularities, is rejected; because theories are not merely generalizations but statements (abstractions) about causal mechanisms. They also reject enumerative induction, arguing that, if causal laws are tendencies and not absolute predictions about events they are irrelevant to an assessment of the truthfulness of the posited causal mechanisms" (Pratt, 1989, 104). According to these propositions, critical realism hold that reality, "including society, is made up of ***deep structures*** which condition and make possible the ***'events'*** we observe in everyday experience and, importantly, in scientific research and reflection. Emphasis on events is important in order to understand of concrete. Pioneer of critical realism, R.Bhaskar, suggests that critical realists do not deny the reality of events and

discourses; on the contrary, they insist upon them. But they hold that we should identify structures at work that generate those events or discourses. Such structures are irreducible to the patterns of events and discourses alike. These structures are not spontaneously apparent in the observable pattern of events they can only be identified through practical and theoretical work of the social sciences" (Bhaskar, 1989, 2). In the new version of historico-materialist epistemology, methodology covers three separate domains,

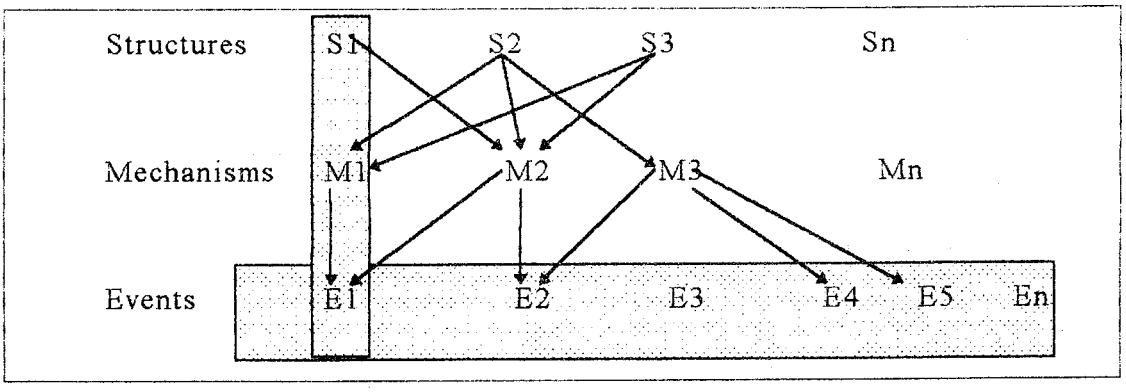
(1)-The ***real***(mechanisms, which are unobservable);

(2)-The ***actual***(events, which are observable phenomena);

(3)-The ***empirical*** (experience, of events). (Clocke et all.,1991, 137).

Lovering used this framework for analyzing the structure of defense industry. In this study the abstract categories are the domain of the real, the mechanism, which form the domain of the actual; and the events which constitute the domain of they empirical; thus the mechanism related to two abstract categories (capitalist production and the nation -state system) intersect to produce the events in which the military-industrial complex is shaped. (Johnston, 1991, 240). Lovering asserts that dynamic relations between structures and mechanisms within which relationships will be complex. A given structure will be sustained, reproduced or transformed by ***more than one*** mechanism, by an event, and by a given mechanism and a set of events will sustain, reproduce or transform more than one structure. Analyzing society means unraveling the ways in which discrete structures converge on specific sets of mechanisms." (Lovering, 1991, 41). Lovering illustrates diagramatically those relationships;

Figure: Model of relationships between Structures, Mechanisms and Events



"Any 'event' (such as E2) is multiply determined by deep structures S1, S2, S3_ as indicated by the connections lines. The structures in question will depend on the object of our study, but S1, might for example designate the system of capitalist production, S2 the nation-state system, S3 the system of patriarchy, etc. Structural determination is effected through a set of mechanisms (M2,M3). Mechanisms refer to historically specific forms in which systemic forces, -our structures-, are effected. The plane of 'mechanism' in the model may include specific organization of capital into units, the pattern of discrete markets, etc, political apparatus, and traditions, etc" (Lovering, 1991, 42).

Research Design or Tools (Method)

On this basis, research task is organized as a combination of all three levels in these processes. Sayer considers these research tasks as ***a theoretically informed concrete research***, and he offers a brilliant research design which combines ***intensive*** and ***extensive*** research. These two approaches ask different sorts of questions, use different techniques and methods and define their objects and boundaries differently. (Sayer,1984 and Sayer and Morgan, 1985).

According to A.Sayer the ***intensive research*** design; ***is concerned with*** how some causal process works out in a particular case or in alimited number cases such as; how was special industry restructured in a particular period. ***Extensive research***, which has been far more common in economic geography, is mainly concerned with discovering some common properties and general patterns in a population as a whole, e.g. what have been the main changes in the location of industry" (Sayer, 1985, 150).

Extensive research methods are based on;

(i)-large scale formal questionnaire,

(ii)-descriptive and inferential statistics and numerical analysis.

Intensive research uses mainly qualitative methods;

(i)-participant observation,

(ii)- informal and interactive interviews.

These two types of methods also work with different conceptions of groups. Extensive research "concentrates on taxonomic groups, that is to say on groups whose members share similar attributes but which need not actually connect to or interact with one another. e.g. 'plants employing 1000+ employees. Such groups may only exist in the classifier's mind, in this sense heir members do not objectively connect to form a coherent group." (Sayer, 1985, 150). Again according to Sayer, methods of extensive research make use of large-scale, formal standardized questionnaires. In which each respondent is presented with the same set of questions under controlled (quasi-experimental) conditions, comparisons are possible and 'observer-induced bias' minimized.... In other words, the technique allows individuals to be compared taxonomically but it is a weak for discovering causality. (Sayer, 1985, 245).

Intensive research focuses mainly (thought not exclusively) on groups whose members may be either similar or different but which actually relate to one another causally; e.g. firms related 'vertically' through linkages or 'horizontally' through competition (Sayer, 1985, 150). By contrast, in extensive research, "the researcher has a much better chance of a learning from respondents how different or significant circumstances are for them. The respondents are not forced into an artificial one-way mode of communication in which they can only answer in terms of the conceptual grid given to them by the researcher. This also enables the researcher to refer to and built upon knowledge gained beforehand about the specific characteristics of the respondent, instead of having to affect ignorance (tabula rasa) in order to ensure uniformity or 'controlled conditions' and avoid what might be taken as 'observer induced bias'." (Sayer, 1984, 246).

Hence functions of both methods are different, the one primarily explanatory, the other primarily descriptive and synoptic (Sayer, 1985, 150).

These two methods and their tools have inherent weaknesses. Extensive research is "the weaker. The explanatory tool so far as concrete events are concerned; it lacks sensitivity to detail, it will not permit the identification of casual mechanisms and, by favoring generalization over abstraction, it is susceptible both to chaotic conceptions and ecological fallacies... The major drawbacks of intensive research methods is that they lack representatives and may therefore be susceptible to the problems of over extension of concrete research." (Clocke et all.,1991,156).

In reality, different weakness of these methods, suggest that both approaches are needed in the research process. We need extensive research in the first stage of research in order to introduce our research area, it would give us useful insights an overview and some general information. It would provide us with clues in order to design intensive research. A.Sayer suggests that in evaluating the merits and problems of intensive and extensive research designs we must keep in mind their different roles, which may be complementary rather than competing" (Sayer,1984, 247).

Now, it is clear that our historico-materialist ontology and epistemology connect to a methodological apparatus. These complementary approaches do not only offer an adequate starting point for social theory but they also lead to design a relevant research project.

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