SOCIOLOGY, PHILOSOPHY AND MATERIALISM

Wilfrid Denis

Few sociologists question whether their writings in sociology are scientific. Having settled the issue of "science" in social science long ago, the major task for sociologists is conceived as empirical research and its relationship to theory. Since a certain definition of science is usually taken for granted, the scientificity of new theories and approaches is evaluated on the basis of existing social science. Issues such as contradictory definitions of science are usually left to philosophers while theoretical questions are debated within a common conception of science. At least, this was the situation until fairly recently. Recent developments which have changed such a situation include the impact of some philosophical debates on sociologists[1], the development of phenomenology/ethnomethodology in sociology, and the pheonix-like rise of marxism in the 1960's. These three factors, each in their own right, have shaken the philosophical foundations of traditional sociology and produced very awkward if not insurmountable theoretical and philosophical problems for current sociology.

This paper focuses on the philosophical dimension in social theory and attempts to deal with it in terms of social analysis and the development of a science of man.

Using Thomas Kuhn as a starting point, I shall review some of the literature on sociological theory, indicating the major difficulties of discussing social theory while omitting any philosophical dimension. Efforts to include a minimum of philosophy in theory will also be included. After commenting on the problems inherent in such efforts, I shall summarize a recent attempt at elaborating the philosophical bases of sociology, as a demonstration of the kind of exercise necessary to overcome these problems.

My closing comments will take the form of a discussion on the relationship of philosophy to sociology. My position essentially is that social theory cannot be fully understood without its philosophical roots. Through these roots, social theories are directly related to the actual and historical dimensions of social reality. The philosophical traditions and premises ingrained in social theory comprise basic worldviews which reflect class ideologies. Thus the discussion of various philosophies of science lead us to conclude with a few summary statements on the ideological dimension of social theory.

I. Sociology without Philosophy

Since the turn of the century, sociology has been largely anti-philosophical. Passing references are made to philosophical traditions which engendered the discipline. After all, it is difficult to mention Comte and not refer to "positivism". But, in spite of a "sociology of knowledge", the philosophical underpinnings of sociological theories and approaches rarely surface in the literature. It is possible at times in empirical research to tease out ontological and epistemological assumptions. However, disdain or unconcern for these aspects, frequently results in a lact of logical consistency and continuity. Theoretical and conceptual syntheses and borrowings very often contain contradictory premises, which, when pushed to their limits, reveal a jumbled and incoherent philosophical base.

As stated earlier, recent events are stimulating a greater willingness among sociologists to discuss assumptions inherent in their theories.

Interest in this dimension of theory has manifested itself in the widespread usage of the concept "paradigm" and the numerous attempts to identify the major "paradigms" in sociology.

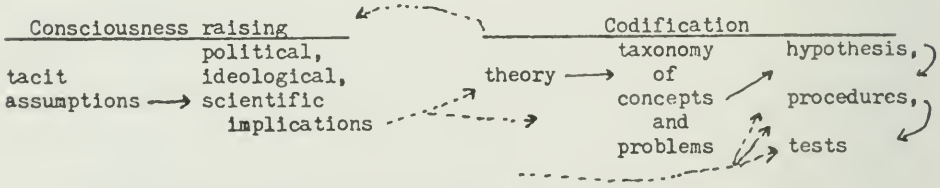
Thomas Kuhn's The Structure of Scientific Revolutions is largely responsible for the current popularity of the term "paradigm". For Kuhn (1970:10) paradigms are: "accepted examples of actual scientific practise...(which) provide models from which spring particular coherent traditions of scientific research." Such models include the laws, theories, applications and instrumentations accepted as being scientific by a community of scholars in a discipline.

According to Kuhn, scientific paradigms go through various stages. As a paradigm becomes dominant, it enters a normal stage where research is done within its intellectual framework. New explanations are not sought, and when they surface, they are rejected as being "unscientific". As knowledge expands, certain anomalies develop which cannot be adequately explained by the dominant paradigm. As these anomalies become increasingly salient, the dominant paradigm enters a crisis stage. Alternate explanations are sought. A new kind of explanation develops and replaces the former paradigm through a scientific revolution.

The new paradigm may have less explanatory power than the established paradigm generally, but it claims to at least solve the latter's "crisis provoking problem". However, changing paradigm is not a question of logic or rationality, since even these are paradigm dependent. Rather, the new paradigm involves a new way of seeing the world. The simplest and most obvious examples are: the world as round rather than flat; or revolving around the sun, rather than center of the universe. Such a change of perspective requires a change of one's mental set akin to religious conversion. Acceptance of the new paradigm becomes largely a question of faith, of "subjective and aesthetic considerations" (1970: 144-159). Thus Kuhn rejects the notion of objective theory free criteria for evaluating competing paradigms.

That Kuhn refers almost exclusively to the natural sciences, and that he uses the term in twenty-two different ways (Kuhn 1970:181; Ritzer 1975:4) presents problems for sociologists adopting his concept and theory[2]. The term has been reduced to three types by Masterman (Kuhn 1970:174). At the highest level, a metaphysical paradigm presents a total world view in a given science. At the next level "sociological" paradigms are more concrete and specific interpretations of the world view. It includes theories and problems to be solved based on accepted examples of research. The lowest level is the construct paradigm which includes tools, instruments and research measurement techniques[3]. Most sociologists who use the concept "paradigm" refer to the two lowest levels.

Merton (1968:104) for example uses the term in the narrow sense of codification of concepts, problems, procedures, and inferences related to a particular theory. Such a codification has a dual purpose: the clarification and tighter specification of the whole conceptual apparatus one brings to a problem; and consciousness-raising. Codification should make researchers aware of the political, ideological, and scientific implications of the tacit assumptions underlying concepts (1968:109). Merton's paradigm can be summarized in this schema: (manifest effect ——→ ; latent effect - - - →):



Such codification indicates a theory can have more than one

"paradigm" which then become confined to problem areas. This leads Merton (1968:69) to refer to paradigms of deviant behaviour, racial intermarriage, and sociology of knowledge. Although recognizing the importance of underlying assumptions, Merton's (1968:73-136) own effort at codifying functionalism emphasizes clarification of concepts through empirical research, and pays scant attention to "consciousness-raising". His "tacit assumptions" may refer to different philosophical traditions, but his own work on functionalism indicates that his analysis stops at the much lower level of differences between theories.

Goertzel (1976) and Alford (1975) both attempt to classify theories in political sociology into three paradigms: elite, class, and pluralism. For Goertzel (1976:6) the basis of theoretical models are "the basic beliefs about the nature of man and society", whereas Alford (1975:145) acknowledges

> "...the implicit but powerful influence of the assumptions upon all aspects of the intellectual processes involved: selection of problems, unit of analysis, key terms, definition of the relevant data, interpretation of data and generalizations beyond data."

For both Goertzel and Alford, paradigms are equivalent to theoretical models whose bases are alternate conceptions of the organization and distribution of power in society. Both restrict their analyses to the political realm. Goertzel (1976:42) even goes so far as to claim that the three paradigms often agree about facts. It is at the level of interpretation that disagreement occurs. "But on the more mundane level of social research, the three perspectives can often be effectively combined."

Alford associates different explanatory power to each paradigm, and thus each of his paradigms corresponds to one of the three levels

at which society can be analysed. Pluralism explains the actions and mobilization of individuals and small groups; elite analysis explains decision making and social structures at the institutional level; and class analysis "sets limits of policy formation and of state structure within class relations of a given society." (1975:153).

Although Alford is more consistent in demonstrating the effect assumptions can have on a theory and its analysis, he doesn't systematically discuss the fundamental differences between his paradigms. His discussion convincingly demonstrates the relationship between implicit assumptions and the competing perceptions of power in society. But, the implicit assumptions which he discusses remain in the political realm. These assumptions, part of a philosophical tradition lead Alford to accept the State, the Political, as the base of power in society. The result is such conceptual monstrosities as to identify fascism as the pathological form of the class paradigm (1975:150).

For both Alford and Goertzel, the issue is one of competing interpretations of fact rather than one of alternate definitions of reality. The importance of certain ontological assumptions are recognized, but these are not systematically linked to different philosophical traditions which include different methodologies, definitions of science, and conceptions of reality.

Ritzer (1975) develops the idea of sociology as a multi-paradigm discipline, also identifying three paradigms: social fact, social definition, and social behaviour. Ritzer (1975:7) claims a synthesis of Kuhn's three types by defining paradigms as "a fundamental image of the subject matter within a science". Already a contradiction appears between his definition of "a fundamental image" and his three

paradigms. Either sociology consists of three sciences or his paradigms are identical. Although each paradigm incorporates a number of theories, these share the same values, methodology and subject matter. Ritzer can be summarized as follows:

Paradigm:	Social Fact	Social Definition	Social Behaviour
Examplar:	Durkheim - Suicide	Weber - social action	Skinner - Beyond Freedom and Dignity
Subject Matter:	social facts	individual definition of social facts	human behaviour
Theories:	a) structural-functionalism b) conflict theory c) systems theory	a) action theory b) symbolic interactionism c) phenomenology - ethnomethodology - dramaturgy	a) behavioural sociology b) exchange theory
Methods:	survey, questionnaire, interviews	observation, interview	experimental, laboratory and real life

The base for each paradigm is the definition given to its subject matter. Since Ritzer adds a special category of "paradigm bridgers", most sociological literature could be thus classified. Durkheim, Weber and Marx bridged the first two paradigms, while Parsons covered all three (1975:212-216). There is also the possibility that new schools such as the Frankfurt school, or social biology might become paradigms.

But the major concern for Ritzer is the political bickering between sociologists using different paradigns. Unfortunately, he does not relate this to "underlying values" which he recognizes but does not deal with extensively. To do so may have lead to a certain awareness of his own assumptions underlying his call for peace in sociology so that syntheses, bridges, and "triangulation" between paradigms can lead the day to a brighter sociology. This lack of depth also manifests

itself in his assumption that the images on which his paradigms rest all reflect the same social reality. The idea that contradictory definitions of reality are involved, is never entertained.

Ritzer claims to include the metaphysical dimension in his paradigms, but I find it lacking. As a result his taxonomy becomes artificial and limited to secondary characteristics. Its boundaries remain superficial as long as they are not based on more fundamental aspects of these perspectives.

In this respect, J. Turner (1978:11) is more consistent in using the terms "orientation" and "perspective" to identify the equivalent of Ritzer's "paradigms".

Turner identifies four major orientations in sociology: functional, conflict, exchange and interactionist orientations. Recognizing that there exist "sharp disagreements among advocates of these four orientations", Turner states that the divergences are not fundamental enough to constitute paradigms. Contrary to Ritzer, Turner sees the overlap and convergence of these orientations as indicating that they fall within the same broad overview. Nevertheless, Turner recognizes the development of another paradigm, ethnomethodology, which has developed from German phenomonology and interactionism. This new approach presents an alternate view of the social world (1978:404-421). Turner states that his four orientations share a common base (Kuhn's metaphysical level), from which he can discuss similarities and differences of these four orientations while recognizing the development of another paradigm[4]. But, Turner does not analyse the fundamental differences between his two paradigms in great detail. Nor does he refer to the Frankfurt or Althusserian "schools". He presents an excellent discussion of positivist

sociology but without elaborating its philosophical base.

II. Sociology and some Philosophy

So far, one might conclude that sociologists are not fully aware of the level at which one locates "tacit assumptions", "basic beliefs" and "images of subject matter". Their sociology of knowledge would seem inadequate for discussing the core issue of fundamental philosophical differences[5]. Such conclusions are partly correct, but some sociologists do attempt to delve into this aspect of theory. Their efforts have given rise to what could be called the "crisis in sociology" literature.

The word "crisis" immediately brings to mind Gouldner's work, The Coming Crisis of Western Sociology[6]. Arguing that sociology is affected by sub-theoretical sets of beliefs, he attempts to demonstrate the presence, source and effects of such background assumptions in Parsonian structural-functionalism. Interesting as Gouldner's work is, it is very incomplete because it limits itself to one exemplar of a paradigm, and does not effectively contrast it with the assumptions of alternate forms of sociology. Neither does he elaborate on his own "reflexive sociology" (Smart 1976:10). Gouldner, like the sociologists above, fails to push his analysis to its philosophical roots. Consequently, he overlooks the fundamental differences which he claims underlies Parsonian sociology and his own reflexive sociology.

The popularity of Gouldner's "crisis" can be explained largely by the rise of phenomenology-ethnomethodology, and its challenge to the structuralist-functionalist perspective. Some sociologists argue that what is involved is not just a new methodology, or a new way of collecting data, but another way of seeing the world[7]. It is presented as

a different definition of social reality (Mason in Thorns 1976:103-114; Filmer 1972; J. Turner 1978:408-9).

Some sociologists pursue the matter even further. Smart (1976) contends that Marxian analysis and phenomenology cannot be integrated into academic sociology without questionning the assumptions of each regarding the nature of social reality and the subjective/objective distinctions. His discussion of contemporary sociology lead him to conclude that both critical theory (Frankfurt) and Marxian phenomenology "share the beginnings of an approach to study society" which overcome the problems of positivism and German phenomenology (1976:153). Only by integrating Marx, as in the Frankfurt School for example, will sociology eliminate its reifications and ideological distortions, and be able to overcome not only epistemological differences, but also its political complicity.

Not all sociologists who perceive epistemological differences in distinct "kinds" of sociology take such a strong stance. Many eagerly call for immediate syntheses.[8] Brown (1977) for example sees essentially two epistemological approaches to sociology: positivist-empiricist, and phenomenology-ethnomethodology; one materialist, the other subjectivist or idealist. For him, however, science and sociology are simply symbol systems which do not have any priority or ascendance over such systems. Brown then uses aesthetics to evaluate the symbol systems in sociology in hope of developing a metalanguage to overcome epistemological differences between empiricists and subjectivists. Such a creation will allow for an "epistemic self-consciousness for sociological thought"(Brown 1977:243). "This view finds its justification in a post-positivist, post romantic, dialectical, symbolic realist theory of knowledge."

(Brown 1977:233). His approach reveals the philosophical superficiality of his analysis. His symbolic realism places him squarely in the idealist camp. Thus, his efforts although acceptable within this perspective, will immediately be rejected by positivists as pure idealist abstractions.

The materialist-idealist dilemma is obviously not a fresh rediscovery. Oestereicher (1968) attempted to deal with it ten years ago. Drawing on similarities between Hegel, Marx and G.H. Mead, he seeks a social-psychological explanation of the development of science within a structural context. The need to compare "facts" is not the issue, but rather "the conceptual structures which organize them and give them meaning"(1968:43). Oestereicher argues against the empiricist tradition that science develops through accumulation of facts. Agreeing with Kuhn to a certain extent, he maintains that science develops through a succession of conceptual schemas which provide different perspectives with which to order and give meanings to facts.

> "We may only assume that the structuration of rational thought tends to take the form of successive states of dynamic equilibrium and that the increasing generality and inclusiveness of these states corresponds to the increase of rational human knowledge itself"(1968:248)

The above comment for Brown is equally applicable to Oestereicher. Neither one recognizes the importance of the questions on the origins of "the structuration of rational thought", let alone address the issue.

Zeitlin (1973) does essentially the same thing. After criticizing the more established positivist approaches, such as structural-functionalism, conflict and exchange theories, he seeks to develop a Marx-Weber model of historical analysis, based largely on C.W.Mills interpretation of Marx. To this he adds phenomenology and the dialectical naturalism of both Marx and G.H.Mead. Needless to say his references to Marx are limited to the "young Marx", that is mostly the Theses on Feuerbach and

the Economic and Philosophical Manuscripts of 1844. This leads to a final attempt at discovering the convergence of Freud(as interpreted by Marcuse), Mead and Marx so as to provide a structural basis for social psychology. Zeitlin present the usual critiques of positivist sociology (a-historical, pro-status quo, etc.) then flirts with epistemology in Marx (1973:243-9) to produce forth his synthesis. Although Zeitlin (1973:Preface) claims his synthesis "most adequately considers both the structural and situational dimension of the social process" it seems theoretically weak. The use of reinterpretations of Marx by Mills and of Freud by Marcuse, as well as the emphasis on the young Marx indicates the nature of his synthesis. Mead, Marx, and Freud are interpreted from within the same perspctive, one which emphasises the situational dimension and which, in spite of Zeitlin's claim, leaves out the structural aspect.

Other works similar to the above exist. But these well-known cases illustrate very well the fundamental weakness. The point is not that the authors fail to include a systematic analysis of the various philosophical traditions in sociology. The point is that they have not done so for the theories which they use. Thus even if recognition of different traditions is given, the failure to systematically examine their basis results in syntheses and comparisons based either on secondary aspects, or on a compatible re-interpretation. Consequently such work falls within one specific tradition or other.

III. Critique of sociology without philosophy

There are a number of related points to be made from the above discussions. First, there is much confusion in the definition and the usage of the concept "paradigm". Avoiding or overlooking the actual

philosophical basis of paradigms results in conceptual confusion which accounts for much of the terminological confusion. Philosophical underpinnings provide the conceptual orientation of the paradigms, and consequently affect, if not determine, the theories, concepts, methods and research problems. The conceptual orientation coincides with certain ideological currents (ie positivism and liberalism). Both have a direct effect on the values and the political orientation academics develop. Without a systematic elaboration of these aspects of paradigms, the term itself becomes more of a fad than a meaningful concept in sociology.

Secondly, since sociologists generally "do" theory without philosophy, they fail to grasp the importance of Kuhn's religious conversion from one paradigm to another. Since what is involved is changing completely one's worldview, it seems improbable that people can shift readily from one to another. Yet this is implied by many taxonomies. Loose definitions of paradigms and lack of a philosophical base allow such authors to discover "bridgers", syntheses, "paradigm jumpers" and other such energumen. Such classifications are superficial and incomplete. Their arbitrariness results in limited usefulness and reduced accuracy.

Another aspect to this problem is that without a philosophical base, sociologists are prone to discover numerous theoretical syntheses. These usually assume that gradual quantitative change in theory can lead to qualitative change. Although Kuhn (1970:181) later attenuated the importance of qualitative change in theory, the notion of revolution in science remains central to his argument. One simple example illustrates the significance of such change. To think of the world as round

instead of flat presents few problems of qualitative change for modern theorists. Undoubtedly some will argue that such a simple example is not analogous to modern complex social theories. But, the principle is still the same, and such a simple example does indicate the type of change which qualifies as qualitative and revolutionary, in Kuhn's terms. Gradual quantitative change can set the stage, but it does not actuate or induce this more fundamental change. Rupture is necessary to pass from one type of change to the other, and from one type of theory to another. To attempt syntheses of contradicting theories is not only impossible when the full significance of the opposing world views are appreciated, but unnecessary. To attempt it leads only to obscurantism. To successfully synthesize such theories indicates a fundamental agreement, a common pardigmatic base from which the theories either originate or are interpreted.[9] There are few, if any, syntheses between paradigms, many within.

Thirdly, sociologists are generally not aware of their own paradigm, that is, the philosophical foundation or their own thought. As Kuhn states regarding "normal science", the world view is taken so much for granted that it is never questionned; it never comes to mind, unless challenged by an alternate paradigm, and even then. Consequently many sociologists find it easy to do syntheses, discover "bridgers" and the rest, since they are operating essentially on the same epistemological and ontological assumptions.

The confusion in sociology as to different "philosophies of science" may well be the result of positivist sociology's attempt to separate itself from philosophy. As Marcuse (1955:323-388) argues, Comte inaugurated this seperation, and empiricist-positivists have eagerly fol-

lowed the tradition of distinguishing between the "real" (the emprirical) and the metaphysical.[10] Since any question relating to "philosophy of science" was of the metaphysical realm, it obviously fell outside of sociology proper. Inasmuch as positivist sociology dominated the field, such issues were non-issues because they were defined as non-sociological. However as different philosophies of science appear within sociology, they not only challenge the dominant positivist philosophy of science , but they also reintroduce philosophy into sociology. They reintroduce at the heart of sociological theory such "philosophical" debates as the identification of competing philosophies of science and their pervasive influence on sociology.

IV. Sociology and Philosophy of Science

One recent attempt to systematically examine philosophy of science within modern sociology is that of Keat and Urry (1975) Social Theory as Science. They identify three main philosophies: positivist, realist, and conventionalist.[11] Although they present a lengthy discussion of these philosophies, numerous writers have commented briefly on various aspects. We shall use Keat and Urry's effort as the general approach to the issue of philosophy of science in sociology, referring to other works when appropriate. The major aspects of each philosophy will be presented with cursory remarks on sociology.

a) Positivism

Positivist sociologists have not written very much recently on positivism.[12] Most who write, do not share its philosophy, namely phenomenologists (Smart 1976; Filmer et al 1972) and realists (Keat and Urry 1975). The features which are usually stressed include the following.

Naturalism: In positivist sociology, naturalism refers to the belief that social and natural phenomena are not qualitatively different. Consequently, the methods, techniques and approaches of the natural sciences are directly transposable to the social sciences (Thorns 1976:10; Lally in Thorns 1976:55). One of the strongest advocates of this position was Lundberg (Keat and Urry 1975:91).

Unity of science: If social and natural phenomena are scientifically similar, then the development of a unity of science follows quite naturally. All sciences are progressing towards a greater synthesis of knowledge where sciences will eventually lose their arbitrary boundaries and become one (Kolakowski 1968:8). Some sociologists prefer a weaker view of science developing gradually but not necessarily reaching that particular outcome. Two views of this development exist (Keat and Urry 1975:24). Science either develops through accumulation of facts, increasing accuracy of information, and development of increasingly more general theories, in the inductivist view; or sporadically as new theories are discovered and empirically tested. In this "hypothetico-deductivist" view, not all new theories are empirically acceptable, thus making scientific progress unsteady. Regardless of the approach preferred, all would agree to the fundamental unity of logic and methodology which underlies all sciences and which relates to the naturalism mentioned above.

Phenomenalism: If such unity exists, it is because all sciences define reality in the same way. For positivists, what is real, factual and scientifically acceptable as knowledge is observable. Thus no distinction is drawn between essence and phenomenon. What cannot be perceived through sensory experience belongs to the realm of philosophy

and the metaphysical (Kolakowski 1968:4). All other forms of knowledge other than empirical observation are rejected as unscientific, and all knowledge which claims a distinction between the essence of an object and its observable manifestation is rejected as metaphysical fabrication.

Nominalism: Kolakowski (1968:5) relates this label to the idea that scientific knowledge must rest on real concrete objects. This requires two different kinds of statements and languages: one observational, the other theoretical.[13] Keat and Urry (1975:18) refer to the "ontological and epistemological privilege" of observational language, that is only the observational language is accepted by positivists as having real referents in the physical world. As a result, epistemologically, terms in this language have the greatest truth, or the highest degree of certainty to them.

Theory neutrality: It follows from the above that the observational language is theory neutral since it refers to real, actual things. Thus this language can be verified as being true or false without referring to theory (Keat and Urry 1975:19). The same does not apply to theoretical language since its truth or accuracy can only be assessed in reference to observational terms.

Another aspect to theory neutrality which also relates to phenomenalism, is its application to facts. Facts are seen as being theory neutral or theory independant. All can agree on the facts, it is the interpretations of facts (theory) which is problematic.

Value neutrality: Not only are facts theory and value neutral but scientific knowledge is also value neutral (Thorns 1976:10;57). The question is not simply the rejection of values and beliefs as a source of knowledge, but rather seeing the whole scientific enterprise as being

objective and free of values. This gave rise to the debate on value - free sociology, based largely on a misinterpretation of Weber[14], propagated by the influential Parsons (Zeitlin 1973:58). Although today few would support the extreme position of seeing all sociology as value free, much difficulty remains in determining the demarcation between objective value free knowledge and value based interpretation.

Correspondence rules: The separation of theory from facts in all positivist social sciences raises the problem of relating the "ontologically and epistemologically privileged" language to the inferior theoretical language[15]. The translation of one to the other requires increasingly complex rules, detailed and complex operationalizations, an ever greater number of indicators and statistical tests of indicators to overcome the problem. Yet, the problem always remains: are the concepts and theoretical terms accurately translated into observational language, or is some vitally crucial element left out?

Theory: Keat and Urry (1975:13-16) claim that for positivists, theories are simply sets of highly general universal statements to be empirically verified through observation and experiment. Few positivists today would argue for conclusively proving theories.[16] Consequently two partial solutions have been developed. Confirmationists argue for strengthening a theory by empirically validating applications of it, while falsificationists hold that a theory is strengthened by proving competing theories to be false (hypothetico-deductive method). Both accept empirical research as the objective basis for science, and both believe that theories which are accepted are "universal statements about regular contingent relationships in nature" (Keat and Urry 1975:16). On the other hand, positivists see models simply as heuristic aids which

help one to understand a theory. But such analogies and representations are nothing more than psychological crutches to assist understanding, and have nothing to do with knowledge as such (Keat and Urry 1975:23).

Conservatism: A criticism raised especially by the Frankfurt School is that positivist sociology leads to the acceptance of the status quo since it rejects any non-empirical knowledge as being non-scientific (Keat and Urry1975:220). Since this sociology is concerned with society the way it is rather than the way it could or should be, it leads to political conservatism. Or as Stinchcombe (1968:91) described it in terms of functionalism: its conservatism consists of "... a feeling that... homeostatic variables constitute a list of good things about societies and that focusing on the positive consequences of existing institutions tends in a conservative direction".

Both are partly correct. At best positivism leads to reformism. But conservatism inherent in positivism originates mostly in its ontology. Phenomenalism requires positivists to accept phenomena at face value. As a result fetishes are accepted a real, rather than as a facade for an underlying reality. Examples of this are seeing the market in economics and elections in political science or political sociology as all-determining. Stinchcombe (1968:91) for example accepts these statements as facts. Such beliefs correspond with 19th century liberal-democratic ideology, the ideological counterpart to positivism. But to explain positivist conservatism simply by its ideology or by "feelings" is to overlook its primary source: its ontology. One is tempted to transform Hegel's proposition: "What is rational is actual and what is actual is rational" (Bender 1975:15) to read:"What is observable is, what is, is observable". For Kolakowski (1968:204) this phenomenalism and the domi-

nant value system together explain the positivists' tendency to favour parliamentary democracy as, at most, Social democrats.

Causal theory: One final, but essential feature of positivism is its Humean regularity theory of causation. For positivists, science is an attempt to develop knowledge which permits prediction and explanation of events in the world. This is done by constructing general theories expressing regular relationships that research demonstrates actually exist. For positivists, ability to predict such relationships also comprises ability to explain. Causes are explained by regularities rather than by logical or natural necessity. The same applies to explanations of events using J.S.Mills'set of conditions, where no one condition alone is sufficient. According to Keat and Urry (1975:31-2) this set of conditions is still founded on a regularity theory since no distinction is made between necessary and sufficient conditions.

Although other aspects of positivist sociology could be indicated, the above points lead us to conclude that the Comtian distinction between philosophy and science has prevented positivists from identifying philosophy in their own science. Thus most fail to see that the assumption of dealing only with empirically based knowledge is itself part of a philosophy of science, part of a belief system. Or, in Kolakowski's words: "...positivism is a normative attitude regulating how we are to use such terms as "knowledge", "science", "cognition"....(1968:3).

Keat and Urry (1975:71-95) identify many sociologists, especially in the United States, as positivists. From Comte, Spencer and Durkheim, they include Merton, Parsons, Lundberg, Guttman, Stouffer, Bales, Shils, to name a few. The sociological theories associated with this philosophy include structural-functionalism, symbolic interactionism, and

exchange theory. However, apart from empirical studies related to these theories, many of the standard works on sociological theory are written from within this tradition. Some are openly apologetic of one theory, such as Lazarsfeld (1970) for structural-functionalism. Others simply view all theory from the positivist perspective (Ritzer 1975; Cohen 1968; Eisenstadt and Curelaru 1976[17]; Timasheff 1967[18]; Martindale 1974[19]).

To complete Keat and Urry, one could identify specifically which features above are included in each theory and its variants. Certain theories and writers emphasise certain features only. Also, as Keat and Urry recognize, these aspects can be accepted with varying degrees of strength. However, such questions go beyond the scope of this paper.

b) Realism

Since most sociology up to the 1969's was positivist, very little realist sociology has been done. According to Keat and Urry (1975:68) Marx remains one of the few who has written systematically within this paradigm. This causes difficulties in maintaining a distinction between a realist philosophy of science and Marxism (Keat and Urry 1975:96). Their comments can be grouped under naturalism; causal theory; ontology; and models.

Naturalism: Both positivists and realists accept a reality external to man. However realists reject phenomenalism, and have a different theory of causation. Consequently, realist naturalism includes an objective empirical world where science can discover non-positivist causal relationships. Except for these points, the distinction which Keat and Urry make between realist naturalism and positivist naturalism is not very clear.

Causal Theory: Realists share with positivists a "conception of science as an empirically based, rational, and objective enterprise, the purpose of which is to provide us with a true explanatory and predictive knowledge of nature." (Keat and Urry 1975:5). However realists differentiate between prediction and explanation of nature, and insist the latter should be science's prime concern. To explain a phenomenon means to discover its natural cause. A realist explanation consists in discovering a

> "regular relationship between phenomena, and some kind of mechanism that links them. This requires knowledge of the underlying structures that are present, and the manner in which they generate or produce the phenomenon to be explained." (Keat and Urry 1975:30).

Much importance is attached to explanation because realists reject the Humean regularity theory of causation in favour of a natural causal theory. Phenomena have natural or real causes. Prediction of future events on the basis of past regularities does not reveal or explain the actual cause of such events. Such explanations require the other elements of the realist philosophy of science.

Theories: The main objective of theory is to explain; to provide a description of a regular relationship and its underlying cause of structure. Theory is an attempt to actually describe reality. This reality includes the phenomenon to be explained, the underlying structures and mechanisms which generate the phenomenon, and an explanation of how the latter generate the former (Keat and Urry 1975:32-6).

Ontology: Realist ontology differs from the positivist one in at least two important aspects. First, realists reject positivist phenomenalism. A distinction is drawn between the true object or its

essence, and its phenomenon or appearance. Since such "natures" are not open to direct observation, positivists relegate them to the "metaphysical realm", the realm of the scientifically unprovable. For realists, objects have underlying "natures" which are disguised behind observable manifestations, but which can also be perceived through their effects on other phenomena.

Another aspect to be considered is that unlike positivists, no distinction is made between observational and theoretical language. No ontological privilege is given to observational language since theoretical terms presumably refer to real facts. Thus realists avoid the problem of correspondence rules which plague positivists.

Realists argue that terms cannot be classified by the positivist dichotomy observational/theoretical, because many terms are both. It is assumed that if terms are relatively unproblematic at the observational level, they remain unproblematic at the theoretical level. Terms can also be defined by means of analogies from some already understood term. Since both observational and theoretical terms have ontological value, theories become actual descriptions of social reality. Thus they are not simply generalizations, heuristic devices, or abstract conjectures. Theoretical terms refer to real things which are explained by theories describing the true nature of the phenomenon, and the underlying structures and mechanisms that are its natural cause. Science progresses inasmuch as theories and terms become increasingly accurate and precise descriptions of social or natural reality (Keat and Urry 1975:38-44).

Models: Realists see models as a relatively early stage in the

process of developing a theory. Models are analogies drawn from known phenomena to unknown and often unobservable phenomena. "Models are of a subject and modelled on a source." (Keat and Urry 1975:33). Thus an analogy is drawn from the underlying structures and mechanism of a known case or similar phenomenon (source of the model) to those of the phenomenon to be explained (subject of the model). As such models are attempts to describe underlying structures and mechanisms, and since these are accepted as real, models become a description of actually existing entities and relations. One of the main activities of scientific research is to extend these models in empirically testable form and test them. In this respect,positivists would argue realists are doing hypothesis testing. But such model testing refers to real natural causal relationships rather than generalizations from empirical observation of regularities. Keat and Urry (1975:36) indicate differences in positivist and realist ontological premises resulting not only in different uses for models, but in altogether different conceptions of models. Positivists develop models by "a process of abstraction and idealization of the concrete." For realists, "abstraction and idealization are involved in the relationship between the elements of the model and the essence that it represents" (Keat and Urry 1975:135).

These are essentially the main features which Keat and Urry associate with realism. As stated earlier, they identify Marx as the only social scientist who consistently worked within a realist philosophy of science. A realist sociology has yet to develop.

c) Conventionalism

The third philosophy of science which Keat and Urry (1975:46-66)

discuss is conventionalism. Arising mostly out of German phenomenology and American pragmatism, it can be traced mostly through Husserl, Schutz (Smart 1976:ch.3), Bretano and Max Scheler (Ritzer 1975:103; Zeitlin 1973:167-170) and partly through Max Weber (Zeitlin 1973:167-170) and Marxism (Smart 1976:115-149; Zeitlin 1973:167-170).

There exist few attempts to identify the main features of its philosophy of science, apart from Keat and Urry (1975:46-65), but these seem fragmentary and incomplete(Lally in Thorns 1976:62; Turner 1978: 395-402; Ritzer 1975:109-112). The main aspects usually include anti-naturalism,"value partiality", and relativity.

Anti-naturalism: Unlike positivists and realists, conventionalists reject the idea that an "objective social reality exists independent of knowing human subjects"(Lally in Thorns 1976:59). In its most extreme form of idealism, only the image or ideas man develops of reality are seen as real. Today, most would accept a modified version which calls for a shift of emphasis from the material objective world to the subjective world of consciousness. Most agree that the former exists, but argue that knowledge of the world depends on man's consciousness. Universal empirical knowledge is not possible because all knowledge is based on a system of beliefs (Keat and Urry 1975:142-144). Since all science carries varying elements of subjectivity, the focus of science is not objective reality but rather the manner in which man makes sense, establishes order and gives meaning to the world in which he lives. This idea can be expanded by looking at other features of this philosophy .

Value partiality: I suggest this term as an opposite to "value neutrality" so as to regroup a number of aspects. First it means that theory neutral facts are not possible. That people agree on a given

fact simply indicates that they share the same meaning system for evaluating or identifying facts. Perception is influenced by, if not a reflection of, values, ideas, and general knowledge. Consequently definition and even perception of the objective world depends on one's perception of the world.

Since data on facts are value laden, scientific knowledge becomes simply a system of symbols for making sense of the world. As such scientific theories have no precedence over other meaning systems. Also, scientific theories and science as a whole requires study and explanation just as any other system of knowledge (Turner 1978:421). Implicit in this is rejection of the positivist "unity of science" and "theory neutrality of observational language". If facts are theory laden so is the language used to describe them.

The Frankfurt School goes further than most, claiming that science not only can not, but should not be value neutral (Lally in Thorns 1976:67). Social science should be programmatic. It should seek to change society in regards not only to social problems, but to the very structure of society, so as to overcome fundamental problems such as alienation.

Rejection of value neutrality has other implications which can be regrouped under the following heading.

Relativity: Implicit in conventionalist ontology is the notion that theories cannot be empirically verified. Today few argue for a definitive or conclusive proof or disproof of a theory. Most argue for varying degrees of confirmation. The problem that this raises is the development of criteria for choosing between theories. Keat and Urry (1975:49) indicate Lakatos' solution of abandoning a theory only if an alternate theory explains all the first one explained, and still

generates predictions not derivable from" the first theory, "some of which have been confirmed by empirical testing". However this solution rests on the assumption of value neutrality of facts and theories.

All approaches seeking to compare theories, either for evaluation or syntheses, assume the possibility of translating the observations, concepts, and"facts" of both theories into a common language.(Keat and Urry 1975:50). Conventionalists argue that even a theory neutral observational language is not possible. Theory affects perception and definition of data. Consequently it is not possible to rationally compare or evaluate their explantory powers. This brings us back to Kuhn, discussed earlier, and his claim that all methodological standards and rules are paradigm dependent.

For conventionalists, theories and observations always include a subjective element, either of the researcher directly involved, or within the larger scientific community which developed and supports a particular theory and method of observation. Even if facts could be objectively determined, there could always be more than one explanatory hypothesis, and the one to be chosen as true or better, cannot be determined by experience (Kolakowski 1968:143). Thus rejection of value neutrality of facts and scientific knowledge result in relativity in theory, methodology and substantive knowledge. Everything becomes relative to the meaning system of which it is a part.

If positivist sociology seeks to disembody itself from philosophy, conventionalism seeks its integration. For positivists, the conventionalist emphasis on man's consciousness automatically places all such sociology in the metaphysical realm. However, Keat and Urry argue that the issue is not science versus philosophy, but rather conflicting philosophies

of science. Thus they identify Schutz' phenomenology (164-5), Levi-Strauss' structuralism (173-4) and the Frankfurt School with Marcuse and Adorno (218-221) as conventionalist social theories. Again one can elaborate considerably on the specific philosophical premisses of the major works related to these theories.

V Sociology and Materialism

The main argument which underlies this paper is the need for philosophy to understand social theory. Some of the errors and difficulties of discussing social theory without philosophy were demonstrated. These include superficial synthese and taxonomies of theories which compound confusion rather than enlighten. I also indicated the inadequacies of including only a simple awareness of some of the underlying assumptions to theories. What is needed are systematic discussions and expositions of philosophical traditions and premisses ingrained into social theory. One such exposition, that of Keat and Urry, as supported by others, was presented. Their effort could be expanded substantially. It can no doubt be challenged on numerous points, especially the lack of sufficient distinction between the realist and the positivist philosophies. Their work is far from final, but at least it gives some idea as to the nature of the exercise, an exercise which seems totally alien to the writers mentioned in the first part of the paper.

The problem so far appears to be philosophical: the discovery and identification of philosophical underpinnings in theory formulation, and their effect on empirical research. Thus the problem can be defined as one of competing philosophies of science which provide legitimation for non-positivist sociology. It is an attempt to expand the definition

of "science" so that non-positivist sociologists will have their work accepted, or at least tolerated, as "science" within the social science community. As long as non-positivists have to prove the scientificity of their work according to the canons and criteria of established sociology, they face the choice of distorting their work into variants of the dominant paradigm[20], or having it rejected as un-scientific. The scientificity of non-positivist sociology cannot be demonstrated on the basis of positivist canons. So, philosophy of science not only justifies and legitimates non-positivist sociology, but even challenges the dominant paradigm. One might then expect the conclusion of this paper to expand on this dimension.

However, this definition of the problem can easily lead to theoretical relativity where empirical research and theory formulation are defended on the basis of competing notions of science. For Keat and Urry, this would be identified as a conventionalist argument, that of competing meaning systems. Like Kuhn, one can argue that alternate paradigms are challenging the dominant paradigm, and preparing the ground for a scientific revolution. These two positions of complete replacement of the dominant paradigm or of paradigm coexistence correspond to the strong and weak version of the same conventionalist argument. Nevertheless, many sociologists will be more than happy to stop here. A few may wish to push their analysis further.

If the notion of theoretical relativity outlined earlier is rejected, the problem has to be defined differently. It can be redefined as two very broad and general philosophical traditions, materialism and idealism. As long as the debate remains within idealist philosophy, the

earlier definition of the problem is adequate and the suggested solution of greater tolerance for non-positivist sociology is satisfactory. As a redefinition of the problem situates the debate outside idealism, philosophy of science becomes incomplete, inadequate.

To redefine the problem as a materialist-idealist dichotomy, with the regrouping of conventionalism and positivism in the latter may appear simplistic at first glance. Yet, even Keat and Urry (1975:63-5) and others (Kolakowski 1968:154-173; Hollis and Nells 1975:153-169) need a special category of "instrumentalism" or "pragmatism" for those who combine positivism and conventionalism. The materialism-idealism dichotomy involves a clash of mutually exclusive world views which are embodied in various philosophical traditions. Allen (1975) Althusser (1976 a) Balibar (1978) and Hoffman (1975) outline these world views, raising numerous points of which three are of particular significance to sociology. These indicate the direction the materialist-idealist debate would take in the discipline.

The first point is historical materialism versus marxist social science. Some academics attempt to discover or develope a marxian variant of their particular discipline. Such Marxist social sciences do not have to be invented or adapted from modified empiricism or phenomenology. Marxist science already exists in historical materialism. It has its own framework and approach. However it transcends the artificial discipline boundaries of academia. As a result, Marxist scholars attempting to do historical materialism are constantly challenged or hindered by these imaginary boundaries. Many academics who try to develop historical materialism remain prisoners of these boundaries. A few examples such as Smart and Zeitlin were mentioned earlier, not

to exclude the countless humanist and empiricist revisions of Marx. In spite of Marxist rhetoric, they deform Marx's scientific discoveries (Althusser 1976a:41):

> "Sauf exception, ils sont encore aujourd'hui en train de bricoler en économie politique, en sociologie, en ethnologie, en anthropologie,.... Leurs théories, ce sont des vieilleries idéologiques, rajeunies à grand renfort de subtilités intellectuelles et de techniques mathématiques ultra-modernes."

It isn't that sociology, or any social science, has nothing to contribute to Marxism. Rather they can contribute inasmuch as they share a common materialist philosophy and are incorporated into Marxist science: historical materialism.

The second point is that the issue is not just one of finding a suitable and acceptable philosophy of science for Marxism as Keat and Urry seem to suggest. Making Marxism academically acceptable is a very difficult problem for its practitioners. One solution is to use different philosophies of science to disguise dialectical materialism. To do so is to sneak Marxism in through the back door. Such a strategy, whether conscious or not, tends to weaken and dilute Marxism. By seeking to make Marxism academically acceptable in this fashion, the danger is very great that it will be transformed into a variant of the dominant conceptualizations of social science. One risks making it safe and uncritical.

Historical materialism has its philosophical base: dialectical materialism. There is no need to seek other philosophies to support it. What has to be defended is not philosophy of science but dialectical materialism.

Introducing a Marxist world view into academia is not a purely intellectual exercise. As Althusser (1976a:42) explains:

> "Les conceptions du monde sont représentées dans le domaine de la théorie... par la philosophie. La philosophie représente la lutte des classes dans la théorie. C'est pourquoi la philosophie est une lutte, et lutte fondamentalement politique: lutte de classe."

Superficially, the struggle in which Marxist academics are involved is that of having historical materialism accepted as a science, and work done in historical materialism accepted as scientific.

> "We therefore have the right and the duty to speak (as all the classics have done) of Marxist theory, and within theory, of a science , and a philosophy...we must fight for the word science.." (Althusser 1976b:16).

At first glance this seems simple enough, but its simplicity is misleading for this task embodies what Allen refers to as the class struggle between bourgeois and proletarian ideology(1975:42,53,231). Getting historical materialism accepted by academia as a "science" involves a direct challenge of the dominant conception of science, the dominant parcelization of knowledge into arbitrary disciplines, and the dominant ideology as institutionalized into the academic community. Therefore, it is not a question of competing philosophies of science, but rather class struggle in academia, which is our third point.

The dominant paradigm reflects the ideological hegemony of the bourgeoisie in one particular ideological apparatus. The domination of the bourgeois ideology in academia accounts for the weakness of Marxist science and theory.

> "Or ce scandale théorique n'est pas du tout un scandale. C'est un effet de la lutte de classe idéologique: car c'est l'idéologie bourgeoise, la "culture" bourgeoise qui est au pouvoir, qui exerce "l'hégémonie". Dans leur masse, les intellectuels communistes et marxistes, sont sauf exceptions, dominés dans leur théorie par l'idéologie bourgeoise. Sauf exceptions, les sciences humaines aussi." (Althusser 1976a:41)

Bourgeois ideological hegemony explains"the fact that they (scientists) most often present themselves in the terminology of Marxism, "tinkering

around" with and turning inside out its major theses" (Balibar 1978:7). Superficial use of Marxist terminology and categories disguises "radical chic" bourgeois social science. It also confuses the issues involved whenever they appear.

The struggle manifests itself in publishing, in hiring practises, in thesis committees, undergraduate papers, graduate exams, conferences and seminars; in every academic activity in which different conceptions of science clash as an expression of class struggle. This aspect of philosophy in sociology needs further elaboration, for class struggle in social theory is directly related to, and even a part of the proletarian class struggle. One simply has to compare the development of Marxist studies where the proletarian movement is strong, in such countries as Italy and France with that of English Canada or the United States where it is weak.

Also, the relative autonomy of ideological apparatuses such as the university is crucial in explaining the current tolerance and even the need for a token Marxist in each social science department of these "liberal" institutions. These are some fundamental aspects of philosophy as class struggle in the social sciences which a detailed analysis would have to include. The struggle is ideological but it is class struggle nevertheless, and it permeates the University.

In conclusion, the problem is not simply that of identifying "philosophical underpinnings" in social theory, but rather that of replacing idealist philosophy with materialist philosophy. To do so is to challenge and weaken the dominant ideology as it exists in social science and as it is institutionalized within academia.

Conclusion

The relationship between philosophy and sociological theory has been described in this paper as utterly lacking in much of the literature, and quite superficial in most of the rest. Some of the resulting problems were indicated, as well as one attempt to use philosophy of science to overcome them. That competing philosophies of science tend to result in theoretical relativity forced the analysis one step further, to the materialism-idealism dichotomy. An easy criticism of this paper will be that these two world views, or conceptualizations have not been outlined. Similarly the points of historical materialism, dialectical materialism, and class struggle in academia, especially in relation to sociology, were not fully elaborated.

To reply by refering to one's sources is not very satisfactory. That these points in themselves provide more than enough material for another lengthy paper is a partial excuse. After all, these points were presented simply to indicate the direction a more complete analysis should take.

Another partial answer is that many critics insist other people do the work for them. Parading under different shades of radicalism, they display a chronic allergy to Marxist classics and serious neo-Marxist literature. Eager to attack numerous injustices in society, these "safe radicals" insist on constantly referring to theoretical models and approaches which, at their best, have never lead to anything but reformism. Satisfied with diluted and eroded interpretations of Marxist science, they are unable to penetrate beyond the intellectual barriers of the dominant paradigm.

Inasmuch as the University remains liberal, and bourgeois hegemony is not too threatened, either internally, or at the world level such as in recent events in Africa, Marxists can expect tokenism to continue. In liberal institutions, Marxist philosophy and science can be defended. If conditions worsen, we can expect some replay of McCarthyite witchhunts. In a conservative setting, Marxists will be lucky if they can get away with competing philosophies of science.

FOOTNOTES

1. A full article could be written on this topic alone, illustrating the influence of Hayek, Hempel, and Wittgenstein for example on sociologists. One is also reminded of the Popper-Adorno debate among others. T. Kuhn's The Structure of Scientific Revolutions has had a significant impact on sociology, of which certain aspects will be discussed in this paper.

2. For a lengthy discussion and Marxist critique of the influence of Kuhn and his use of the paradigm concept on sociology see Allen (1975:3-66).

3. In reaction to reviewers, Kuhn attempted to clarify his term by redefining the metaphysical level as a "disciplinary matrix", a shared system of symbols, beliefs, models and values, which identify a scientific community (1970:176-186). The second level, he now refers to as exemplars which while being part of the matrix, are of a lower order. These provide models as examples from which solutions to current research problems can be drawn. The term "paradigm" could be retained for this level, according to Kuhn (1970:186-190).

4. Turner's use of the concept paradigm conforms closely to that of Kuhn. Also his account of sociological theory can correspond to Kuhn's theory if one sees structural-functionalism as a dominant paradigm carrying this discipline through a period of "normal science" over the last two generations or so, and ethnomethodology as the emerging paradigm, in this "crisis of sociology". However this would be unfair to Turner since his account has relatively little to do with Kuhn's theory, depite the easy similarity.

5. Allen (1975:42) is quite categorical on this point. He states that the only two conceptualizations of social reality possible are of static versus dynamic phenomenon. It is on either one of these two irreconcilable initial assumptions that various social theories are erected, adding further supporting assumptions as they develope. The premise of social reality as static phenomenon is so fundamental to accepted theories of social reality that practitioners hardly ever question it. According to Allen, this initial premise is so pervasive that discussions usually remain at the level of secondary assumptions and differences.

6. For incisive reviews and critiques of Gouldner's book, see Shaw(1973) for a marxian perspective; and Rhoads (1972) for a positivist pro-Parsons perspective.

7. Thorns (1976) presents a collection of essays which address such questions. Although most of the authors reveal their positivist training, they indicate at least an awareness that ethnomethodology and Althusser, for example, are not simply branch offs from "normal sociology".

8. An interesting example of one who discusses some crucial differences between phenomenology and positivist empiricist sociology and yet cannot resist the urge to call for merging these two approaches is Thorns (1976:161-177). Less remarkable examples are Ritzer (1975) and Catton (in Thorns 1976:25-52).

9. Van den Berghe (1967) claims to synthesize Marx and structural-functionalism. In fact he synthesizes an empiricist reading of Marx with an equally empiricist structural-functionalism. The same argument applies to Smart (1976) with phenomenology and Marx, and Zeitlin (1973) with Marx and social psychology. For critiques of such facile syntheses, see Applebaum (1978) and Swingewood (1970).

10. Turner (1978:21-22) makes much the same statement regarding Comte and the separation of philosophy from sociology.

11. Bhaskar(1975) refers to these as: empirical realism, transcendental realism, and transcendental idealism. Bhaskar does not explore sociology as such, but presents a systematic analysis of these philosophies of science.

12. Turner (1978:393) for example identifies three features to positivist sociology. These could be labelled phenomenalism, unity of science and nominalism. However his description is in such general terms that it could apply to more than one philosophy of science. More accurate summaries of positivism are found in Thorns (1976:9-22;55-75; Bottomore 1975:9; Giddens 1974:2-8). Kolakowski (1968) presents an excellent elaboration of positivist philosophy. Giddens (1974) presents an interesting collection of articles by phenomenologists and critical theorists, against the positivism which he defends in the introduction.

13. Hollis and Nells (1975:4-10) identify these as synthetic and analytic statements, in economics. The major part of their book is a criticism of positivist separation of fact from theory, which provides the basis for a sustained criticism of neo-classical theory in economics.

14. For an excellent discussion of Weber's position, and of some objections to it, see Keat and Urry (1975:196-204).

15. For a detailed analysis of the problems positivist economists face in developing correspondence rules, see Hollis and Nells (1975:89-106). Keat and Urry (1975:20-22;160-1) address this problem in social science in general, and in sociology in particular.

16. This aspect of theory verification is referred to as the "logical problem of induction"(Keat and Urry 1975:15) or the "inductive problem" (Hollis and Nells 1975:11). The problem is essentially that of predicting future outcomes on the basis of past experience. To do so is to go beyond knowledge provided by observation. For an excellent elaboration of this problem, that of correspondence rules, and the necessity for hypothesis testing as the only road to cumulative knowledge, by a positivist sociologist, see Zetterberg (1954).

17. One of the most recent efforts at systematically exposing sociological theory is that of Eisenstadt and Curelaru. True to the positivist tradition, they seek to demonstrate the convergence of sociological theory since its inception by Confucius and Aristotle, as developed by the founding fathers (Marx,Durkheim,,etc.) not only in Europe and in the

U.S.A., but throughout the world.(The index lists three continents, 18 countries, plus "communist bloc" and "Scandanavia".) However the major problem the authors face in this extensive catalogue (footnotes limited to"the most important material" accounts for almost 100 of the 375 pages) is the fact that much of the literature refers to a "crisis" in sociology. Recalling that cries of "crisis" generally accompany important breakthroughs (Preface IV) the authors proceed, undaunted, in describing the major paradigms, theories, and counter-models, and locating these in their broader intellectual and institutional frameworks. Relying for example on Bendix and Lipset's explanation of Marx'stratification theory (25) they are able to discover under all the divergence and discordance, a unifying thrust. "In one way or another, all these approaches(from Althusser to Marcuse, phenomenology to Lévi-Strauss) have accepted or incorporated the basic premisses of the sociological tradition as developed by Toennies, Weber and Durkheim and as crystallized in the structural-functional model and its varieties". Thus in the crucible of positivism, all contradictory theori molten, and after discarding some slag, a new alloy forms, with its analytical point so hard, and its explanatory power so overwhelming as to propel sociology beyond the narrow confines of present knowledge towards uncharted galaxies of empirical reality.

18. A somewhat older account of the origins and development of sociological theory, Timasheff is as much a positivist as Eisenstadt. For example, he spends four chapters on Comte, Spencer, Durkheim and Weber (total 53 pages) for three pages on Marx. Although number of pages is a weak indicator, he does label Marx as "economic determinism"(48) and phenomenology as "philosophical sociology"(ch.21).

19. Martindale (1974) presents an interesting taxonomy based on the history of philosophy. His eight cell typology can accommodate any theory. However, since the whole typology is so abstract and general, and since Martindale actually refers to very few exemplars, it remains a hasty sketch in need of a more thorough foundation even if it were an accurate reflection of sociological theory.

20. As demonstrated in the first part of the paper, the term "paradigm" is quite ambiguous for sociologists. In this context, I use the term in the sense of a body of theories which share the same philosophy of science. For now, I am using Keat and Urry's three philosophies of science as being relevant for sociology, and with positivist philosophy as being the dominant one.

BIBLIOGRAPHY

ALLEN, V.L.; Social Analysis: A Marxist Critique and Alternative; London: Longman, 1975.

ALFORD, Robert; "Paradigms of Relations between State and Society" in Lindberg, Leon (ed) Stress and Contradiction of Modern Capitalism; Lexington, Mass.: Heath and Co.; 1975.

ALTHUSSER, Louis; Positions 1964 - 1975; Paris: Editions Sociales,1976.

_____; Essays in Self Criticism; London: New Left Books, 1976.

APPELBAUM, Richard, "Marx's Theory of the Falling Rate of Profit" American Sociological Review; Vol. 43, 1978 (67 - 80).

BALIBAR, E.; "Positivism and Irrational Thought" New Left Books; No. 107, January-February, 1978 (3-18).

BARNES, Barry; Scientific Knowledge and Sociological Theory; London: Routledge and Kegan Paul, 1974.

BENDER, Frederic; The Betrayal of Marx; New York: Harper Torchbooks, 1975.

BHASKAR, Roy; A Realist Theory of Social Science; Leeds England: Leeds Books, 1975.

_____; "Feyerabend and Bachelard: Two Philosophies of Science"; New Left Review; No. 94, Nov.-Dec. 1975 (31-55).

BROWN, Richard; A Poetic for Sociology; Cambridge: Cambridge University Press, 1977.

COHEN, Percy; Modern Social Theory; London: Heinemann, 1968.

EISENSTADT, S.N.,Curelaru, M.; The Form of Sociology - Paradigms and Crises; New York: John Wiley and Sons; 1976.

ETZIONI, Amitai; Social Change: Sources, Patterns and Consequences; New York: Basic Books, 1973.

FILMER, Paul (et al); New Directions in Sociology; London: Collier Macmillan, 1972.

FREUND, Julien; "Methodologie et Epistemologie comparées d'Emile Durkheim, Vilfredo Pareto, et Max Weber"; Recherches Sociologiques, Vol. 5, 1974 (282-309).

GOERTZEL, Ted G.; Political Society; Chicago: Rand McNally College Pub. Co.; 1976

GOULDNER, Alvin; The Coming Crisis of Western Sociology; New York Basic Books, 1970.

HARRE, Rom and Madden, E.H.; Causal Powers: A Theory of Natural Necessity; Oxford: Basil Blackwell, 1975.

HOFFMAN, John; Marxism and the Theory of Praxis; London: Lawrence and Wishart, 1975.

HOLLIS, Martin, Nells, Edward; Rational Economic Man; London: Cambridge University Press, 1975.

KEAT, Russel and Urry, John; Social Theory as Science; London: Routledge and Kegan Paul Ltd., 1975.

KOLAKOWSKI, Leszek; "Althusser's Marx" in The Socialist Register, (111-128); 1971.

_____; The Alienation of Reason; New York: Doubleday and Co. Inc. 1968.

_____; Toward a Marxist Humanism; New York: Grove Press Inc., 1968.

KUHN, Thomas; The Structure of Scientific Revolutions; Chicago: University of Chicago Press, 1970.

LAZARSFELD, P.F.; Main Trends in Sociology; New York: Harper Torchbooks, 1970.

MARCUSE, Herbert; Studies in Critical Philosophy; London: New Left Books,1972.

_____; Reason and Revolution; London: Routledge and Kegan Paul Ltd.; 1955 (orig. 1941).

MARTINDALE, Don; Sociological Theory and the Problem of Values; Columbia, Ohio: Charles E. Merrill, 1974.

MEHAN, Hugh, Wood, H.; The Reality of Ethnomethodology; New York: John Wiley and Sons; 1975.

MERTON, Robert K.; Social Theory and Social Structure; New York: The Free Press, 1968.

OESTEREICHER, Emil; Consciousness and Social Action, Towards a Structural Dialectical Conceptualization of Action and Thought; Ph.D. Thesis; University of Illinois: Urbana Illinois, 1968.

PARSONS, Talcott; The System of Modern Societies; Englewood Cliff, N.J.: Prentice Hall, 1971.

RHOADS, John; "On Gouldner's Crisis of Western Society"; American Journal of Sociology; No. 78, 1972, (136-153).

RITZER, George; Sociology as a Multiple Paradigm Science; Boston: Ally and Bacon Inc.; 1975.

SHAW, M.; "The Coming Crisis of Radical Sociology" in R. Blackburn: Ideology in Social Science; Bungay, Suffolk: The Chaucer Press, (32-44), 1972.

SMART, Barry; Sociology, Phenomenology and Marxian Analysis; London: Routledge and Kegan Paul Ltd., 1976.

STINCHCOMBE, Arthur; Constructing Social Theories; New York: Harcourt Brace and World Inc.; 1968.

SWINGEWOOD, Alan; "Comte, Marx and Political Economy" Sociological Review, Vol. 18, 1970 (335-349).

THORNS, David (ed); New Directions in Sociology; London: David and Charles; 1976.

TIMASHEFF, Nicholas; Sociological Theory; New York: Random House,1967.

TURNER, Jonathan; The Structure of Sociological Theory; Homewood, Illinois: The Dorsey Press; 1978, revised.

VAN DEN BERGHE, Pierre; "Dialectic and Functionalism: Toward a Theoretical Synthesis"; American Sociological Review; No. 28, 1963; (695-705).

WALTER, Wallace; The Logic of Science in Sociology; Chicago: Aldine Atherton; 1971.

ZEITLIN, Irving; Rethinking Sociology, A Critique of Comtemporary Sociology; New York: Appleton Century Crafts; 1973.

ZETTERBERG, Hans; On Theory Verification in Sociology; Totowa, N.J.: Bedminster Press; 1963.