A CRITICAL EXAMINATION OF HABERMAS' AND MARCUSE'S ATTACKS ON POSITIVISM, WITH SPECIAL REFERENCE TO THE IMPLICATIONS OF THE ATTACKS FOR SOCIOLOGY

by

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ABSTRACT

The debate between positivists on the one hand, and anti-positivists such as Habermas and Marcuse on the other, about the possibility of an objective value-free social science, seems to have reached an impasse: Positivists continue to assert that the facts and laws of social life are objective givens which can be apprehended by a social science modelling itself on the natural science methodology. (There is disagreement among positivists about whether the natural science methodology is based on inductive or deductive logic, and thus about exactly what would be implied by a transference of this methodology to social science.) Positivists justify their quest for objective knowledge of the laws and facts of social life, by claiming that such knowledge is empirically grounded and ipso facto capable of validation. Anti-positivists, however, continue to assert that positivistically oriented social science is ideological and does not offer a value-free account of the world. Anti-positivists argue that the positivist quest for value-free knowledge of social reality, conceals a hidden value-commitment towards the essential structures of the status quo; they claim that the use of the natural science methodology in sociology necessarily thwarts the attempt to arrive at knowledge of the social world: Only a sociology with a recognised ethical goal of overthrowing the essential structures of the present social system, will be able to comprehend social reality adequately.

The central task of this thesis is to analyse the arguments of positivists and of Habermas and Marcuse, and to locate the taken-for-granted assumptions which are presupposed by these arguments. The aim of the thesis is to point out

that neither positivists nor anti-positivists can justify the ontological and epistemological assumptions which form the basis of their arguments.

In the light of the fact that neither positivists nor anti-positivists can prove the validity of their claims about the nature of knowledge and of reality, but nevertheless believe these claims to be absolutely correct, conventionalist relativism is posed as a compelling alternative to the absolutism of both the positivist and anti-positivist positions. A major part of the thesis is aimed at spelling out the implications of conventionalism for sociology, and of indicating how the adoption of conventionalism would help alleviate the problems arising out of the clash between competing absolute claims - both in the realm of science and of ethics - which are in principle unprovable.

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GENERAL INTRODUCTION

Comte's use of the 'positive method' in order to study social phenomena, represented the attempt to introduce a science of society comparable with the physical sciences. Comte characterised 'science' as the morally neutral examination of "each phenomenon in its harmony with coexisting phenomena" (1973: 28). Comte believed that the 'scientific' study of society would provide information about social reality as a reality of "invariable laws ... which rational observation is competent to disclose" (1973: 22). Comte justified the use of the positive method in the natural and social sciences by arguing that because the method is rooted in observation, it offers certain and indubitable knowledge. Comte's 'philosophy of science' thus echoes that of the Vienna Circle positivists, who argue that the inductivist scientific method provides the route to attaining knowledge of reality.

With the Popperian attack on the inductive account of the scientific method, this account has become largely recognised by philosophers of science as outdated and inadequate. The Popperian-type attack on inductivism has had the consequences in sociology of the introduction of a methodology consistent with, and justified by, the hypothetico-deductive account of the scientific method. But although Comtian inductivism has been largely replaced by hypothetico-deductivism, Comte's definition of science as the attempt to gain morally neutral knowledge of the laws of social life, has not been questioned by hypothetico-deductive sociologists. In Chapter 1, I outline the way in which hypothetico-deductivism represents only a partial transcendence of inductivism and the way in which hypothetico-deductive sociology still embodies 'positive' elements.

At the same time as hypothetico-deductivism has permeated sociology and has become accepted in much sociological

literature and research, another philosophy of science of which sociologists are largely unaware[1] has been proposed as an alternative to the hypothetico-deductive philosophy. This is the conventionalist account of the scientific method. In Chapter 2, I examine the conventionalist alternative to the hypothetico-deductive account of science, and I show the implications of conventionalism for sociology. The method which I use when offering the conventionalist stance, is to uncover the gaps in the hypothetico-deductive account and to show why and how conventionalism represents a viable alternative in the light of these gaps. I am thus attempting to offer a sympathetic account of conventionalism as a means to uncover the taken-for-granted assumptions of hypothetico-deductivism which are never given explicit justification or even recognition. The arguments which I levy against hypothetico-deductivism are divided into three sections:

In the first section, I deal with the hypothetico-deductive account of the empirical basis of science. By analysing in detail the way in which hypothetico-deductivists view the empirical basis problem, I note how their view is prejudiced by implicit ontological and epistemological assumptions: The implicit ontological assumption is that reality is a realm of facts and laws which exist independently of the activity or intervention of human subjects. The implicit epistemological assumption is that knowledge of this independently existing reality is possible. Having drawn attention to these implicit assumptions, I argue that they cannot justifiably be taken for granted and that they are questionable in the light of the conventionalist ontological and epistemological subjectivism.

In the second section, I examine the hypothetico-deductive account of the nature of theoretical concepts and laws.

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1. The extent of this unawareness is an empirical issue, discoverable through empirical studies.

By analysing Popper's arguments against relativists and sceptics, conventionalists and Kant, as well as Hempel's arguments for the 'real existence' of theoretical entities, I show how all the arguments presuppose an objectivist ontology and epistemology.

In the third section, I point out the weaknesses in the hypothetico-deductive account of the nature of values by showing that Popper's account rests on vicious circularity. I also suggest that two viable alternative positions with respect to the nature of values in relation to the nature of facts, emerge from the discussion of Popper's position. The first is that both facts and values have an independent ontological status and both can be known objectively. The second position is that neither scientific nor moral statements can mirror objective reality, neither facts nor values having an independent ontological status. (This latter position is the conventionalist one.)

The chapter proceeds to examine the implications of accepting a conventionalist conception of facts and values. The implications of the conventionalist account of facts and values, for sociology, is given specific attention.

What I attempt to achieve in Chapter 2 is not a conclusive 'proof' that the hypothetico-deductive account of facts and values is 'wrong', but an uncovering of the flaws in the arguments which attempt to prove that the hypothetico-deductive account is 'right'. By noting that Popper's arguments themselves can lead to moral positivism (the view that values like facts have ontological status and can be known objectively) or to conventionalism (the view that values as well as facts have no ontological status and cannot be known objectively) I wish to show how Popper's account of facts and values can be rendered dubious.

What I also attempt to achieve in Chapter 2 is a laying

of the groundwork of the conventionalist position, for it is in the light of this position that many of my criticisms of Habermas and Marcuse will be raised.

In Chapters 3 and 4 I discuss Habermas' and Marcuse's responses to the prevalence of positivism in sociology. I note that Habermas and Marcuse question the positivist definition of 'social science' as a morally neutral attempt to grasp objectively given facts and laws in the social world: Instead of regarding social science as the attempt to gain value-free knowledge of social reality, Habermas and Marcuse define social science as a value-committed enterprise. They argue that social science cannot be separated from ethics, and that social scientific truth is inextricably linked with moral truth. They argue that when social science (vainly) attempts to offer value-free knowledge of the social world, it slips into an ideological and conservative stance which is false at the same time as it suffocates the realisation of the good life. In making their claims for a conflation of social science and ethics, Habermas and Marcuse criticize the hypothetico-deductive form of empirical verification in sociology, and offer alternative contentions as to how social science must become validated.

Chapter 3 is devoted to a detailed analysis of Habermas' critique of positivism and his conception of 'true' sociology. The chapter is divided under the same section headings as Chapter 2, and deals, in turn, with Habermas' conception of the 'empirical basis problem', the problem of theoretical laws, and the problems surrounding the fact/value distinction.

Chapter 4 is devoted to an analysis of Marcuse's critique of positivism and his conception of 'true' sociology. In this chapter the problem of operational concepts is given detailed attention. The problems connected with

the function of the predicate 'good' are also closely examined.

The positions of Habermas and Marcuse are dealt with separately (in separate chapters) in order to consider the particular theoretical arguments of these authors in detail. However, because the conclusions of Habermas and Marcuse (and even some of their arguments) are so similar, I will, in this General Introduction, highlight the common features in my critique of these authors:

1. Neither Habermas nor Marcuse has successfully refuted the positivist vision of social reality as a reality of knowable facts and laws. Although it may be true that social reality cannot be known as a reality of objective facts and laws, Habermas and Marcuse's arguments to 'prove' this are not convincing. Nevertheless, Habermas and Marcuse have drawn attention to the fact that if the positivist vision of social reality is mistaken, then the conservatism of positivist social science helps to foster the perpetuation of an unnecessarily reified social world.

2. Assuming (with Habermas and Marcuse) that there are no objectively given facts and laws in the social world, I suggest that the predictive interest of analytical-empirical social science, does not necessarily suffocate the 'practical interest' of mankind to overthrow the existing social order. Contrary to Habermas and Marcuse, I argue that it is only when social scientists who follow an analytical-empirical methodology are positivistically oriented and/or gear their work towards serving administrator-clients, that their work threatens the 'practical interest'. Although Habermas and Marcuse have correctly noted that much sociology does serve to stifle the practical interest, I suggest that this is not due to any inherent features

in analytical-empirical methodological procedures; if such methodological procedures were coupled with a conventionalist self-understanding, their 'radical' potential would become manifest. It is thus not necessary to abolish the analytical-empirical methodology in sociology on the moral ground that it stifles man's practical interest in emancipation. Analytical-empirical social science is compatible with the 'practical' ethical intention of instituting a radically new social order.

3. Habermas and Marcuse claim that the indissoluble link between the prescriptive and descriptive elements of language, implies that the laws of social life are simultaneously normative and non-normative, that is, simultaneously human creations and objective structures. Against this claim, I argue that proof about the nature of the laws in social reality, cannot be gained by analysing our language used to refer to this reality, for the language may be deceptive. Thus Popper may still (despite Habermas' and Marcuse's claims) be correct in assuming that social laws are solely objective and are comparable with the laws in the natural world.

4. Habermas and Marcuse claim that the linguistic link between prescription and description implies that social science is inseparable from ethics. But I argue that the linguistic link to which Habermas and Marcuse point, only occurs in the ethical discipline: Habermas' and Marcuse's arguments to prove that prescription and description are indissoluble, only point to the fact that ethics is a rational discipline which relies on facts for the justification of its principles (that is, which bases its prescriptions on descriptions). Their arguments do not prove that ethics - as a discipline based on action guiding purposes - is conflatable with social science.

5. Habermas and Marcuse's stance that values are open to a Husserlian-type eidetic discovery can be counter-posed by the conventionalist notion that values are not knowable in any absolute sense. Habermas' claims concerning the knowability of values can be shown to rest on the unjustified assumption that everyday speech embodies the intention of 'reaching an understanding'; while Marcuse's claims rest on the assumption that the words 'good' and 'bad' express the real (objectively given) adequacy or inadequacy of objects.

   Given the dubiousness of Habermas and Marcuse's (objectivist) epistemological stance in which values appear as (absolutely) knowable, the conventionalist stance is posed as both a viable, and a superior alternative.

6. Both Habermas' and Marcuse's claims that their critical social science can be validated in the practice of the historical future, are based on the notion that the suitable conditions of such validation are in principle achievable. By drawing attention to the contingencies which render the notion of 'suitable conditions' inapplicable, I attempt to show that Habermas' and Marcuse's validation-claims are questionable.

7. Because neither Habermas nor Marcuse can 'prove' that their conception of social reality is true or that it is capable of being validated in the historical future, I suggest that their definition of truth be replaced by an (equally viable) alternative. Habermas and Marcuse regard a social theory as (absolutely) true to the extent that it offers a value-laden, reflection of the reality of social life, a reality which is at once normative and non-normative, subjective and objective. Their claim is that a social theory which is simultaneously prescriptive and descriptive, will grasp social reality

'as it really is' and will thus be true (in contrast to other social theories which are ideological). I suggest, however, that this position - which I label an epistemological objectivism because it seeks to gain absolute knowledge of 'the truth' - be replaced by as conventionalist-type ontological and epistemological subjectivism in which the concept 'truth' takes on a relative meaning.

Furthermore, I suggest that social science and ethics as distinct disciplines, should determine distinct criteria from which to examine the 'truth content' of their respective theories or conceptual frameworks. In terms of these criteria the (respective) scientific and moral communities can be engaged in co-creating scientific and ethical 'knowledge'. In this way I reject the positivist claim that the natural and social sciences must use the same methodology because it is this methodology which allows correspondence-theory-type knowledge to be attained. But I also reject Habermas and Marcuse's counterclaim that correspondence-theory-type knowledge of social reality can be attained by using a value-laden methodology (differing from the natural scientific methodology) in the social sciences. Instead I suggest that the social sciences follow the natural scientific analytical-empirical methodology but not with the aim of discovering the 'truth'; rather with the aim of 'doing science'.

By (ultimately) suggesting that a conventionalist conception of the role of science and of ethics be adopted, I am hoping to resolve some of the problematic issues which (I will show) cannot be resolved within positivism or within the position of Habermas and Marcuse.

In Chapter 5, I attempt to elucidate some of the concepts thus far developed, in the light of two pieces of sociological research.

In examining the research pieces, I attempt to show how, in the context of sociology, a conventionalist self-understanding would help solve some of the problems connected with adopting a purely positivist position or a purely Marcuse- and Habermas-type position. I show how the absolute claims of positivism and of Marcuse and Habermas (which have been rendered problematic in Chapters 2, 3 and 4) can be replaced by a viable brand of relativism - viz. the conventionalist brand.

I attempt to demonstrate the viability of conventionalism by noting how it surpasses the dangers of positivist empiricism but still remains empirically grounded (and thus surpasses the dangers of Marcusian essentialism). Furthermore, I demonstrate how a conventionalist use of empirical concepts would not be incompatible with the ethical, emancipatory interest, as defined by Habermas. While demonstrating how empirical sociology can have 'radical' potential in the ethical sphere, I also note (contrary to Habermas and Marcuse) that its 'piecemeal engineering' potential cannot legitimately be dismissed as ethically worthless. Nevertheless, I agree with Habermas and Marcuse that to the extent that the research projects offer concepts compatible solely with a piecemeal engineering type ethics, they do become (scientifically and morally) ideological. I suggest that Habermas and Marcuse's critique of research projects which do not and cannot accommodate ethical radicalism due to their 'positive' and/or administrative bias, is cogent and relevant to the extent that it draws our attention to this bias.

CHAPTER 1

AN EXAMINATION OF POSITIVISTICALLY ORIENTED SOCIOLOGY

INTRODUCTION

In this chapter I will offer a description of the inductive and hypothetico-deductive accounts of the scientific method and will point out in what sense both accounts can be characterised as embracing an ontological and epistemological objectivism. In outlining the central features of inductivism and hypothetico-deductivism, I will note how the latter arose in response to the former; I will note how hypothetico-deductivism attempts to transcend the flaws in inductivism by replacing inductive with deductive logic. But the discussion of inductivism and hypothetico-deductivism will also reveal the common features of the two methodological procedures. The point of drawing out these common features is to show that Popper's belief that hypothetico-deductivism represents a transcendence of positivism can be questioned. The common features of inductivism and hypothetico-deductivism allow us to doubt Popper's equation of 'positivism' with Vienna Circle or Comtian-type inductivism, and to explore the 'positivistic' features in hypothetico-deductivism: By placing in doubt Popper's separation of 'positivism' and 'hypothetico-deductivism', the links between them can be recognised. The importance of understanding the links is the following:

It allows us to understand why Habermas and Marcuse equate sociological positivism with the use of the natural scientific methodology in sociology, and why they are not concerned with whether this methodology is justified by the inductive or hypothetico-deductive account of the

scientific method: When attacking positivism as it is expressed in sociological literature and research, Habermas and Marcuse are attacking the claim that the social sciences must employ the same 'scientific' method as that used in the natural sciences. This claim is made by inductivists and hypothetico-deductivists alike, who merely differ in the account of the 'logic' of the scientific method. Habermas and Marcuse's critique of sociological positivism is a critique of the vision of the task of social science which accompanies both the inductive and hypothetico-deductive accounts of the scientific method and which - I suggest - springs from their underlying (common) ontological and epistemological assumptions.

The aim of this chapter is to:

1. Show in detail how inductivist and hypothetico-deductivist positivists account for the scientific procedure.

2. Show the prevalence of the adoption of a positivist stance in sociology by offering an exposition of the way in which positivism (primarily hypothetico-deductivism) has become embraced in much sociological literature and research.

3. Offer a means for making sense of Habermas and Marcuse's claim that traditional sociology is positivistically oriented.

THE INDUCTIVE ACCOUNT OF THE SCIENTIFIC METHOD

The inductivist methodological procedure is aimed at attaining knowledge by building up theories out of the observational evidence given to the senses. This observational evidence is factual information which is open to observation by more than one person and which would be agreed upon by any two people using the same measuring instruments, or methods of sensory perception. For the inductivists, the objective (independently existing) world of facts is the primary reality and this world can be described unequivocally through methods based on sensory perception. The laws of science are developed inductively by making derivations from these given observable events in order to arrive at general factual statements. The aim of science is to develop general factual statements (laws) and thus establish a "connection between single phenomena and some general facts" (Comte, 1973: 19).

Because the inductivists have such faith in inductive science as the method to attain knowledge of reality, they believe that all knowledge, of nonsocial and social reality, can only be attained in this way: They advocate a methodological unity of the natural and social sciences. Sociology is understood as

> that science which occupies itself with the study of social phenomena, considered in the same light as astronomical, physical, chemical, and physiological phenomena, that is to say as being subject to natural and invariable laws the discovery of which is the special object of its researches. (Comte, quoted in Timasheff, 1976: 20).

Linked to the inductivists' goal of being able to reduce all theoretical statements expressing lawful connections between phenomena, to self-evident truth statements about observations, is the inductivists' account of the nature

of scientific concepts: All theoretical concepts are regarded as directly or indirectly reducible to observable and measurable empirical data. Concepts may refer directly to such empirical data, or they may refer to other concepts which in turn are linked to empirical data. The process of 'operationalising' a concept is a process of finding the indicators which are the empirical referent of the concept; it is a process of defining the meaning of a concept by pointing to the observable data to which the concept refers. Phenomena (of which concepts are symbols) become known to us through sense experience, that is, through sets of observations which measure and record them. The manner in which the data immediately present themselves to our senses is regarded as adequate for conceptualization: It is possible to directly compare our ideas (concepts) with the phenomena (objects) of which they are ideas, and establish an equation between them. This is similar (as Rudner (1974: 42) notes) to the Lockean 'snapshot' theory of objectivity in which

> objectivity is to be found in a certain correspondence between our ideas - construed as mental imagery or pictorizations - and those things of which they are ideas ...

According to the inductivists, this observability and tangibility of the objects which concepts symbolise, is true for both physical and social phenomena. It is for this reason that social phenomena can be brought within the framework of an exact science. The techniques of the natural sciences are in principle transferable to the social sciences and in fact must be used in the social sciences in order that social knowledge can be gained. Thus Lundberg - whose position can be characterised as inductivist - argues that we

> must be able to prove that symbols such as 'honour', 'duty', etc. ... are as perceptible

> and form data as objective as a stone.
> (Unisa, 1976: 38).

Lundberg argues that the main problem in the social sciences is that techniques for the objective study of social phenomena are still relatively underdeveloped, and that much work has to be done in the developement of objective terminology. The inductivists believe that it is possible to define concepts in sociology in terms of the procedures used to identify and measure phenomena. The ideal to induce theories out of sense experience, is extendable to sociology. Because concepts can be defined operationally (in the narrow sense of pointing to the measurable data to which the concepts refer), an observational language consisting of self-evident observation statements whose descriptive content is free from theoretical assumptions, can be formulated. These observations will form the particulate pieces of information out of which the body of sociological theory may arise, and in which this body of theory is grounded.

Before concluding this section on the inductive account of the scientific method, I would like to note in what way it embraces an ontological and epistemological objectivism.

INDUCTIVISTS' ONTOLOGICAL OBJECTIVISM

For the inductivists, 'reality' is a realm of observable facts; it is a realm of things and events which are open to sensory perception by passive observers. Reality consists of things and events which do not owe their existence, that is, their being, to the observing subject. The primary reality, that which 'has being', is an objective reality. It is important to note that inductivists do not explicitly state their ontological position as an equation of 'Being' with objectively existing facts and laws.

But it is clear from their account of the scientific method that they conceive 'reality' as consisting of objectively existing facts and lawful relations between facts: the task of science is to discover reality, and it does so by mirroring facts and laws which exist (have being) independently of the influence of the perceiving or knowing subject. The inductivists are not concerned with philosophising about the nature of relaity; yet their vision of the task of science implicitly embraces an ontological objectivism.

In order to clarify the nature of this ontological objectivist position, I will briefly mention a possible alternative position. This is the alternative that phenomena only exist and obtain their meaning in relation to the subjective consciousness which grasps them. This position was expounded by Edmund Husserl who argued that it is only consciousness which can impose a meaning on the world, and since there is no meaningless being, it is consciousness which is responsible for the being of the world. In Chapters 2, 3 and 4, when considering the assumptions of positivistically oriented sociology as well as viable alternatives, I repeatedly return to this question, and in the process show the merits and demerits of Husserl's position. The crucial point being made now is that inductivists do not consider the possibility of alternative conceptions of reality, but implicitly assume a definition of reality as a conglomeration of objectively existing facts and laws.

INDUCTIVISTS' EPISTEMOLOGICAL OBJECTIVISM

The inductivists believe that knowledge of objective reality 'as it really is' is possible. Knowledge of reality which is unbiased and unaffected by the subject's intervention, is attainable. The knowledge that natural and social scientists gain, is not a product of the knowing process -

subject and object are not inextricably linked in the knowing process. The natural or social scientist is able to distantiate himself from his subject matter, so that the knowledge gained is not tarnished due to his subjective values, interests, ideas and predilections. The knowledge gained is a 'pure' value-free replication of reality. It is this view that it is possible to gain knowledge of objective reality that I call an objectivist epistemological position. (This epistemological objectivist position of the inductivists is considered as justified because of the 'solid' empirical basis of knowledge, that is, because of the fact that knowledge proceeds by building theories out of self-evident observations.)

THE HYPOTHETICO-DEDUCTIVE ACCOUNT OF THE SCIENTIFIC METHOD

In response to the inductive account of the scientific method, hypothetico-deductivists located certain weaknesses in the inductivist argument. Firstly, the hypothetico-deductivists noted that it is unclear why the scientific statements describing factual occurrences are regarded by inductivists as conveying 'immediately given' information. As Popper puts it, it is unclear how, with our

> immediate knowledge (given to the senses), we may justify our 'mediate knowledge' - knowledge expressed in the symbolism of some language ... We can utter no scientific statement that does not go far beyond what can be known with certainty 'on the basis of immediate experience'.
> (Popper, 1962: 94).

In short, hypothetico-deductivists questioned the inductivist claim that perception offers us self-evident factual information, by noting that conceptual symbols necessarily exceed

the limits of 'immediate' observation.

A further problem with inductivism lies in the nature of inductive logic. Hypothetico-deductivists claim that it is only through deductive logic that science can proceed with some degree of certainty. They claim that certainty can never be procured using inductive logic, for no matter how many empirical instances of a law we may invoke using the logic, we can never be certain that the law is true. However, using deductive logic, we can reach some certainty - we can know for certain when a law is false.

In the deductive form of argument, one proceeds from the general to the particular via a logic which states that if a law in general is true, then all particular cases of the law will be true; if one particular case of the law is false, it means that the law itself is definitely false. Using the deductive form of argument, we are thus able to know for certain when some of our knowledge is false: If an occurrence follows deductively from certain premises, and we find that occurrence falsified in reality, then we know conclusively that one or all of the premises must be false.[1] The deductive form of argument may be used in (natural and social) science in order to check the validity of the laws that constitute the theory. This is normally done by formulating the 'test implications' of the laws - such 'test implications' amounting to either occurrences which are expected to occur and which will

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1. When claiming that the deductive form of argument allows certainties concerning the falsity of laws to be established, hypothetico-deductivists are merely referring to the fact that if we know that a case of a law is false, then we can know with certainty that the law is false. Hypothetico-deductivists admit, however, that there is always uncertainty as to whether a particular case of a law can be labelled 'false' and that the decision to regard a case as true or false ultimately rests on an agreement by the scientific community (who may mistakenly label a true case as false, and vice versa).

occur if the laws are true, or else occurrences which are ruled out by the laws and are expected not to occur if the laws are true. An account of the former type of occurrence is offered by Hempel (1966: 19):

> the test implications of a hypothesis are normally of a conditional character; they tell us that under specified test conditions, an outcome of a certain kind will occur ... If conditions of kind C are realised then an event of kind E will occur.

Checking the validity of a hypothesis (which Hempel defines as any statement under test, whether a law or some other proposition) amounts to finding out whether E does occur when conditions C are brought about. If it does not, the hypothesis is regarded as falsified.

An account of a test implication as an occurrence which is ruled out by an hypothesis, is provided by Popper (1962: 69):

> we see that natural laws might be compared to 'proscriptions' or 'prohibitions' ... If we accept as true one singular statement which ... infringes the prohibition by asserting the existence of a thing (or the occurrence of an event) ruled out by the law, then the law is refuted.

The deductivists argue that science proceeds and progresses by formulating and constructing bold hypotheses (which surpass any factual information concerning single occurrences), and then checking these hypotheses against statements describing factual occurrences. The body of theory (consisting of laws which have been tentatively corroborated and thus have for the time being become accepted into the theory) is thus compatible with all past statements describing factual occurrences, that is, it is not contradicted by any given statements concerning available data.

Scientific theories can thus be said to have strong 'inductive support' in the sense that there is a mass of available relevant data (or more precisely, statements concerning this data) which lends corroboratory evidence to the theories. This 'inductive support' (Hempel, 1966: 18) does not, however, establish the certainty of the present theories, for future observations and experiments may prove to be inimical to the theory.

The concept 'induction' thus takes on a different meaning for the inductivists and hypothetico-deductivists. For the inductivists, 'induction' refers to the mechanical process of arriving at generalizations without exceeding the limits of observation, a process which ensures the certainty of the theoretical knowledge gained. For the hypothetico-deductivists, theories are 'induced' from observation only in the sense that they are compatible with, and not contradicted by, the presently available data.

THE PREVALENCE OF HYPOTHETICO-DEDUCTIVISM IN SOCIOLOGY

The deductivists thus argue that scientific theories develop by inventing hypotheses creatively in order to account for certain observed occurrences, and then checking these inventions by deriving suitable 'test implications'. This 'logic of discovery' is embraced in sociology by a 'research cycle' embodying both exploratory research (to formulate hypotheses) and critical testing of formulated hypotheses: Exploratory research is research which results in the proposal of inventive theories and hypotheses which constitute guesses at the connections that might obtain between the phenomena under study. Exploratory research amounts to the inventing of hypotheses as tentative answers to a problem under study. As "The Open University" (1974b: 112) puts it:

> Much social science is directed towards model and theory building ... Exploratory research involves a careful description of variables, searches for associations and correlations and proposes hypotheses which can later be tested and refined.

Exploratory research is thus important for sociology in that "theories must be built which can be tested" (The Open University, 1979b: 112). But this exploratory research is important only insofar as it furnishes hypothetical material which can then be critically tested. It is only once the conjectured hypotheses have passed critical scrutiny which "includes in particular the checking of suitable test implications" (Hempel, 1966: 16) that they can become accepted into the body of theory. In sociology this critical testing amounts to formulating a 'null hypothesis' which postulates

> that there is no statistically significant difference between phenomena which occur by pure chance, and the statistically evaluated behaviour of the data as they have been observed by the researcher in a survey or an experimental research design. (Leedy, 1974: 141)

In other words, sociology's critical testing draws on the following logic :

If a researcher wishes to be sure that he has a chance of 95 in 100 of inferring correctly from his data that there is a relationship between variables, he must design his test in such a way that only 5% of the time will his data lead him to mistakenly accept the idea that there is such a relationship. An appropriate research design must thus ensure that there is only a five in 100 chance of mistakenly accepting the idea that there is a relationship between variables. (If a sampling method is being used, this logic entails that the researcher's sample must have only a 5%

chance of being unrepresentative 'purely by chance', that is, there must only be a 5% chance of 'sample error'.)

Stated in terms of the concept 'null hypothesis', this means that there must only be a 5% chance of rejecting the null hypothesis when it is in fact true. The "statistically significant difference" here, "between phenomena which occur by pure chance and the statistically evaluated behaviour of the data" is 5% (or less). The researcher can, however, choose any significance level when controlling the risk of mistakenly rejecting the null hypothesis - he need not choose a 5% level.

The sociologist's discovery that there is a statistically significant difference between phenomena which occur by pure chance, and the behaviour of the data, leads to his rejection of the null hypothesis and his acceptance of his proposed alternative hypothesis.

THE RELATION BETWEEN THEORY AND RESEARCH

In offering the deductivists' account of the development of scientific theories, I have dealt only implicitly with their account of the nature of such theories and the way in which the body of theory is linked to research. I shall therefore now discuss more explicitly the hypothetico-deductive account of the nature of scientific theory and its linkage with research.

When the term 'theory' is used by the deductivists, it refers to a system of laws which are consistent with one another and which range from a high to a low level of generality.

It is because the statements of a lower level of generality can be deductively derived from those of a higher level, that

the more general laws themselves are regarded as being tested by testing those of a lower level of generality. (Statements of a lower level of generality can only be derived from certain more general laws, and it is of course only these that are regarded as being tested when their deduced derivations are tested.)

> Systems of theories are tested by deducing from them statements of a lower level of universality (generality). These statements in turn are testable in like manner and so ad infinitum.
> (Popper, 1962: 47).

Related to (and consistent with) the above account of a theory as a system of interrelated laws, is the conception of a theory as a unification of all the generalisations thus far established in a field. In this sense the term 'theory' is reserved for statements of a high level of generality, which account for the lower level generalisations. This view of theories is expressed by Hempel (1966: 70):

> Theories are usually introduced when previous study of a class of phenomena has revealed a system of uniformities that can be expressed in the form of empirical laws. Theories then seek to explain those regularities ... the theory explains the empirical uniformities that have been previously discovered, and usually also predicts 'new' regularities ...

This latter view of theories is expressed in the sociological literature when reference is made to the 'research cycle'. The 'research cycle' diagram found, for example, in Greer and Greer's Understanding Sociology (1974: 15) or in the Open University's Variety in Social Research (1979b: 115), places theories at the top of the circle representing the research cycle, hypotheses and regularities being situated lower down on the circumference. The conception is that theories give rise, deductively, to hypotheses, which are defined as testable predictions about the connection between

phenomena; while discovered regularities are related 'upwards' to the theory and thus become theoretically significant.

The way in which theory is connected with research, is both by moving 'downwards' to a lower level of generality (by formulating a testable research hypothesis) and by moving 'upwards' from the lower level empirical uniformities (by interpreting these in the light of the body of theory). There is thus a continual downwards and upwards movement through from theory to the empirical plane of research, and it is this which ensures that the theory is ultimately empirically grounded.

THE NATURE OF SCIENTIFIC CONCEPTS

The hypothetico-deductivists regard scientific concepts as symbols of the phenomena which are being studied. Unlike the inductivists, they do not equate concepts with sets of observations which measure and record phenomena. This is because they regard concepts as referring to entities which are not directly accessible and open to observation. Concepts refer to entities which are not identical with, and cannot be defined in terms of, one or more empirical indicators. The relationship of indicators (as measurable or accessible data) to these entities is that of surrogate of reality to reality. Because these entities cannot be observed, we have to select surrogates of these entities in the observable realm, but we must always keep in mind that there is a gap between the observable surrogates (indicants) and the phenomena themselves.

This view of sociological concepts is expressed clearly by Bauer (1966: 45):

> the key problem of a system of social indicators ... is that we can never measure the variables that interest us directly, but must select surrogates that stand in the place of such variables. Thus we may be interested in whether or not a person is 'ambitious'. But we cannot observe ambition per se ...

There is thus a gap between concepts and indicators, and it is this gap which instils uncertainty into the (natural and social) scientific enterprise. The gap is constituted by the fact that there is always room for criticism of the indicators chosen as surrogates for a phenomenon:

> Once it is recognised that indicators are not equatable with the phenomenon itself, the scientific indicators chosen to represent the phenomenon can be denied by critics as being relevant to the phenomenon. (Biderman, quoted in Bauer, 1966: 35).

No matter what indicators of a phenomenon are chosen, it can always be claimed that these constitute an "arbitary distortion of reality" (Gibbs, 1972: 40) and do not reflect the phenomenon adequately. No scientist - whether natural or social - can definitely claim that his chosen indicators for a concept validly capture the phenomenon that the concept denotes. There is a perpetual gap between concept and indicator which consists in the fact that an indicator (or set of indicators) can never be certainly equated with a concept denoting a phenomenon. The hypothetico-deductivists argue that although this terminological problem adds an element of uncertainty into the scientific enterprise, it does not thwart its progression. The argument is that although we can never know whether a particular definition of a concept does distort reality, agreement with respect to the suitability of the indicators for underlying theoretical concepts can be achieved. It is this agreement (for the time being) which allows the scientific enterprise to advance. This agreement, however, does not ensure

that the inference from indicators to concept is a valid one. In other words, hypothetico-deductivists argue that science proceeds by the fact that scientists agree to accept certain indicators as appropriate surrogates for the phenomenon while recognising that this does not effectively close the gap between indicators and concepts.

The process of operationalising theoretical concepts in order to make them empirically applicable, can be seen as necessary both for the concepts which appear in research hypotheses and for the concepts appearing in the more general theoretical statements of a discipline. In both cases the attempt is to offer an empirical meaning to the concepts, whether the concepts be low or high on the 'ladder of abstraction'.

Concepts Constituting the Terms of Research Hypotheses

For concepts which appear low down on the ladder of abstraction and which constitute the terms of research hypotheses, the process of operationalisation amounts to translating nominal or enumerative definitions into easily accessible data. (Nominal definitions state the general class to which the concept belongs and then offer the defining characteristic of the concept; enumerative definitions state the general class to which the term belongs and then offer the specific list of characteristics which distinguish the concept from other members of the general class.) Here the operational definitions of concepts simply specify the rules by which the researcher translates his concepts into relatively unproblematic (which I will henceforward call 'directly experienceable') observations. Thus the term 'status', which may be nominally defined as social position or rank, may become operationally defined

> by means of a set of directions which tell the researcher to mark on a standardised list of items whether the family possesses certain objects such as rugs, living-room lamps, or a radio or television set, whether its members belong to certain organisations such as Camp Fire Girls, Odd Fellows, or Kiwanis; to what extent its members have attended school, etc. The directions may further indicate what weight should be given to each item, so that a final 'status score' can be calculated.
> (Goode and Hatt, 1952: 51).

Sociologists have introduced the term 'internal validity' to refer to the validity of the link between the nominal or enumerative definitions appearing in research hypotheses, and the operational definitions appearing in the counterpart operational hypotheses. The problem of validity amounts to the problem of whether the indicators constituting an operational definition of a concept, measure all aspects of the concept and measure only that concept (and not also some other concept). Sociologists admit that the establishment of internal validity is never guaranteed, but they have devised various methods which constitute a partial check on the validity of the operational definitions appearing in operational hypotheses.

Abstract 'Theoretical' Terms

For concepts which appear higher on the ladder of abstraction, the process of making these concepts empirically applicable, amounts to translating them into more 'concrete' terms which in turn are translatable into relatively unproblematic observations. These highly general concepts belong to the more 'theoretical' side of a discipline, and they can only be translated into 'directly experienceable' observations through a number of logical and empirical steps.

> the more advanced a science becomes the more indirect inference is necessary since the

> number of logical and empirical steps betwen the problematic (indirectly observable) and explanatory (directly observable) increases. (Doby, 1967: 42).

Hempel argues that these logical and empirical steps downwards towards 'directly experienceable' observations, proceeds by setting up a theoretical system couched in terms of abstract concepts and then establishing an interpretation for this theoretical network. The interpretation will amount to formulating connecting principles between the theoretical and empirical laws of the science, such empirical laws being testable by reference to the 'directly experienceable'. This interpretation of the theoretical network is not, however, regarded as complete, but may be compared to

> Building a bridge across a river by putting it first on pontoons or on temporary supports sunk into the river bottom, then using the bridge as a platform for improving and perhaps even shifting the foundations, and then again adjusting and expanding the superstructure ... (Hempel, 1966: 96).

In sociology, the process of offering highly general concepts an empirical meaning, is often construed as a process of deducing research hypotheses from the body of theory through a logic of classes, and then translating these research hypotheses into operational hypotheses. It is in this way that the highly general concepts become converted into concrete concepts which are easily translatable into the 'directly experienceable'.

Goode and Hatt (1952: 58) provide a good example of this type of procedure:

> Principle: A socially recognised relationship in which there are strains built into the situation will also be surrounded by institutionalised controls, to ensure conformity of

> the participants with implicit or explicit norms.
>
> Deduction: We therefore predict that in those professions (such as psychiatry and psychotherapy generally ...) which deal with the more intimate aspects of clients lives there are (a) more emotional strains in the client-practitioner relationship, and (b) more internalised and external controls upon both participants than is the case in other professions (such as engineering, architecture, dentistry). Of course such a hypothesis can and must be broken down into subhypotheses.

Goode and Hatt would argue that in this way, using a logic of subclasses, research hypotheses have been derived from abstract principles.[2]

Ideal-Typical Concepts

I have thus far discussed the hypothetico-deductive account of the nature of scientific concepts and the nature of the inference from the 'directly observable' to the less directly observable. Before I conclude this section on the nature of concepts, I must make mention of ideal-typical concepts. Earlier on I said that hypothetico-deductivists regard concepts as symbols of phenomena.

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2. Gibbs (1972: 223 - footnote 25) argues that the steps downwards from abstract terms to 'observable' referents should not be regarded as embodying a deduction through a logic of classes. For Gibbs, all of the steps linking theoretical terms to the realm of observation are empirical assertions stating connections which could be incorrectly construed.

   Gibbs' distinction between logical and empirical validity and his claim that no 'logic of derivation' ensures an empirical connection between classes and supposed subclasses, is not, however, usually recognised in the sociological literature. This is evidenced by the fact that sociologists normally 'derive' research hypotheses from theoretical 'principles' using deductive logic.

This, however, does not include ideal-typical concepts (which are normally called 'constructs'). The denotation or designation of a construct is not an entity or phenomenon existing in reality, as is the denotation of other concepts: Constructs are not regarded as referring to existent things or events but rather

> represent the logical extreme of a known thing, event or relationship. The use of constructs allowsthe scientist to construct theoretical limits between which empirical things, events or relationships can vary.
> (Doby, 1967: 43).

Examples of such constructs are an 'ideal gas' or a 'frictionless plane' or a 'perfectly integrated personality'. These constructs are introduced into science for methodological purposes, allowing scientists to understand events or things in reality, by comparing them against their ideal-typical counterparts.

SCIENTIFIC EXPLANATION

The hypothetico-deductivists' account of scientific explanation follows directly from their account of the nature of scientific laws and of scientific theory as a body of deductively connected laws. The hypothetico-deductivists regard an adequate explanation of an event or law as having been given when the event or law is subsumed under a more general 'covering' law. This ideal is stated clearly by Braithwaite (quoted in Gibbs, 1972: 27):

> Any incorporation of a fact - be it a particular instance of a law or the law itself - into a deductive system in which it appears as a conclusion from other known laws, is by virtue of that incorporation, an explanation of that fact or law.

Hempel (1966: 52) notes that the explanation of an event by stating its cause, is an example of a deductive-nomological explanation, because it implicitly refers to the general laws which constitute the logically conclusive grounds for the occurrence of the event. Thus Hempel notes that an explanation of the form 'E because C', e.g. "The slush on the sidewalk remained liquid during the frost because it had been sprinkled with salt", presupposes at least one law, namely, that "the freezing point of water is lowered whenever salt is dissolved in it". Hempel argues that

> It is precisely because of this law that the sprinkling of salt acquires the explanatory, and specifically causative, role that the elliptical because statement ascribes to it.

Explanation in Sociology

In sociology these types of elliptical deductive-nomological explanations of events are offered when sociologists attempt to link the value of a 'dependent variable' to that of an 'independent variable', the assumption being that the independent variable plays a (partial or total) causal role in influencing the dependent variable. As Doby puts it:

> The primary purpose of science is to explain by establishing a connection between a problematic variable and one or more explanatory variables. These are sometimes referred to as dependent and independent variables respectively. (1967: 47).

Sociologists have devised various methods to attempt to establish connections between dependent and independent variables (all of which are admitted to be laden with uncertainty). One of these methods is to establish (statistically) whether there is a significant difference between the means of two groups, with respect to a particular

variable. Because these two groups supposedly differ only with respect to another particular variable, a significant difference between means implies that there is a connection between the variable in which the groups were known to differ and the variable in which the significant difference between means was discovered.[3]

Sociologists following the hypothetico-deductive logic of explanation, have also devised methods to test for degrees of correlation or association between variables, which are conceptualised as dependent or independent. The correlation coefficient (which can be established for interval and ordinal data) is (often) interpreted as revealing the amount of variance in the dependent variable accounted for by the independent variable, that is,the correlation coefficient is considered as a measurement of the explained variance of the dependent variable.[4]

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3. Sociologists admit that this established connection is uncertain because the two groups may also have differed with respect to another (or more than one other) variable. If the groups were chosen through a random sampling technique, then the probability of mistakenly assuming a connection can be calculated. If however, the groups are chosen by 'matching' them on relevant variables, there is an unknown probability that another unaccounted for variable was responsible for the statistically established difference between the means of the two groups.

4. Uncertainty in the establishment of correlations or associations between variables arises because the reliability ofa correlation coefficient calculated for a sample cannot be guaranteed. There is always a probability (which can be calculated) that the sample was unrepresentative 'purely by chance'. Uncertainty in the establishment of correlations and associations also arises because there is always the possibility that the supposed connection between variables is a spurious one, that is, there is the possibility that when some (unknown) variable is held constant, the relationship between the variables all but disappears.

Apart from attempting to establish regularities which can constitute 'elliptical' deductive-nomological explanations for particular events, sociologists following a hypothetico-deductive approach also attempt to place these regularities within a larger body of theory. This placement may take the form of specification. The goal of specification is to

> specify the varying conditions under which the original correlation will exist in greater or lesser intensity ... specification makes 'causal' analyses more acceptable and meaningful. (Goode and Hatt, 1952: 356).

By means of specification, the discovered correlations and associations become linked to a body of more general theoretical statements, and thus become more understandable. (This is in keeping with the hypothetico-deductive account of the nature of theory as constituting an intelligible explanation of low level generalisations).

Hempel expresses this role of explanatory theory as follows:

> A theory will usually deepen our understanding ... by showing that the previously formulated empirical laws that it is meant to explain do not hold strictly and unexceptionally, but only approximately and within a certain limited range of application. (1966: 76).

Sociologists' placement of regularities within a larger body of theory, need not take the form of specification. It might take the form of relating these regularities to more general theoretical 'principles'.[5]

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5. This may involve connecting the regularities with already existing 'principles', or it may involve inventing a covering law or laws to explain the regularities.

THE FACT/VALUE DISTINCTION

Hypothetico-deductivists believe that there is a logical disjunction between factual statements and statement expressing evaluations. In Popper's terminology, there is a "dualism of facts and policies", that is, a "dualism of facts and standards":

> Whatever the facts may be and whatever the standards may be (for example the principles of our policies), the first thing is to distinguish the two ...: through the decision to accept a proposal ... we create the corresponding standard ... yet through the decision to accept a proposition we do not create the corresponding fact. (1973: 384).

Values and facts constitute two separate realms, having different ontological statuses: facts exist in the objective world; while standards 'exist' only in our subjective consciousness.

Only facts constitute the subject matter of science (whether physical or social), for only facts constitute an objective realm to be discovered by man. Scientific problems revolve around the question of what phenomena exist in the world and what relations hold between them. These problems are distinct from problems in the sphere of values, which revolve around questions of what should be done in a certain situation, what state of affairs one should try to bring about and what phenomena are desirable or undesirable.

This logical distinction between facts and evaluations is clarified by Hare in the following way:

> We can perhaps distinguish between objective properties of objects - i.e. those which they have, however a person is disposed towards them - and subjective properties, which an object has only if a person is disposed towards it in a certain way. (1972: 68)

Hare wishes to clarify the point that standards or values are subjective decisions to regard a particular object or state of affairs as good, such decisions being independent of the objective properties (which can be discovered) of the object or state of affairs. This idea of Hare's is comparable with Popper's claim that "whenever we are faced with a fact, we can ask whether it complies with certain standards" (1973: 384) - it will be possible to judge or evaluate the facts in terms of our chosen standards.

With respect to moral 'ought' statements, Hare and Popper also reject the idea that they are reducible to, or derivable from, any statements about factual events. Thus Hare attacks those who attempt to "leap straight from the fact that a certain action would cause harm to people to the conclusion that the action would be bad or wrong" (1972: 94). Similarly he attacks those who leap from facts, to statements that actions are right or good. Likewise Popper attacks those who leap from any factual statements, to the proposal that a course of action should or should not be adopted. In other words, he attacks the attempt to reduce standards to facts and to "erect a monistic system, a world of facts only" (1973: 393).

The Role of Values

Although hypothetico-deductivists believe that the scientific enterprise's 'raison d'être' is the discovery of facts and the advancement of objective knowledge of the facts, they believe that values are not entirely irrelevant for science. The importance of values, however, is not that they constitute criteria by which to judge the validity or correctness of scientific knowledge, but rather that they allow scientific knowledge to become applied. Hypothetico-deductivists believe that the researcher may be able to participate directly in action programmes by providing the

necessary knowledge concerning the best ways to achieve desired results. The quest for sociological knowledge that can be utilised in order to bring about desired ends (values), is encouraged by Popper. Popper believes that 'social engineers' can make use of factual information for the alteration of social institutions in accordance with chosen ends. Popper characterises the social engineer's problem as involving the following question: "If such and such are our aims, is this institution well designed and organised to serve them?" (1974: 23).

This type of relation between sociological knowledge and ethical values (wherein extrascientific ethical ends are brought about with the aid of scientific knowledge of means), is accepted by sociologists who see their role as introducing

> pertinent sociological truths so that the substantive morality and the social policy governing the issues at stake can take account of these truths.
> (Merton, 1966: 790)

These sociologists believe that sociology can provide policy makers with knowledge about the consequences of carrying out certain policies: Due to the help of the sociologist, the policy makers will not overlook relevant information that is available at the time that policy decisions are taken.

The important point to note about 'social engineer' type sociologists is that they do not regard value-free social science as logically impossible. They do not regard the values of the social scientist as necessarily influencing the type of discoveries that he makes. The desire of the sociologist to use his knowledge to bring about certain ends, does not imply that the content of his knowledge is itself affected. The process of knowledge-discovery proceeds

in accordance with methodological rules which allow science to progress in the sense of approaching closer to the truth and forming a closer correspondence with the facts. This process of knowledge-discovery is thus not irredemiably hampered by any of the values that the scientist may have in his extrascientific capacity. The hypothetico-deductivists thus attack the idea expounded by Karl Mannheim that the ethical and ontological presuppositions of individuals (as members of social groups) necessarily mould their descriptions of reality. Popper argues (1977: 293) that what Mannheim's sociology of knowledge overlooks, is the fact that

> objectivity is based in brief upon mutual rational criticism, upon the critical approach ...

It is the critical approach embraced by the hypothetico-deductive methodology, which ensures that objective knowledge can be gained. In science, the critical comparison of competing theories allows us to justifiably say "that we have made genuine progress: that we know more than we did before" (Popper, 1970: 57).

The validity of scientific knowledge is determined by its ability to correspond to the facts; by adopting the 'critical approach' we ensure that we increase the truth content and thus the validity of our scientific knowledge. Whatever values we might have, this does not damage our ability to increase the truth content of our knowledge as long as we adhere to the rules laid down by the 'critical approach'.

HYPOTHETICO-DEDUCTIVISTS' ONTOLOGICAL OBJECTIVISM

Like the inductivists, the hypothetico-deductivists consider the primary reality - that which 'has being' - as an objective

world of facts governed by lawful connections. Both natural and social reality consist of facts and of regularities which 'have being' apart from, and independently of, the consciousness of human beings. Both natural and social reality consist of objectively given facts and laws which it is the task of science to uncover. Society does, of course, consist of some "normative laws, based on decisions or conventions" (Popper, 1974: 60). These normative laws are, however, distinguishable from the 'natural regularities' in the social world which are beyond man's power of control and which are the subject matter of social science. The social reality which social science sets out to discover, has an independent ontological status both in the sense that it exists independently of the knowing activities of the scientists studying it, and in the sense that it exists independently of the wishes of the social actors who constitute the society. Popper's claim (1974: 62) that "it is perfectly true that our decisions must be compatible with the natural laws" existing both in physical and social reality, manifests an objectivist ontological position with respect to both the natural and social worlds. It is significant to note that when Popper makes such statements revealing his definition of natural and social reality as a reality of objective facts and laws, he does not regard this definition as questionable. His ontological assumptions thus remain hidden and implicit, rather than being explicitly argued for by him: He does not embrace an argument concerning the nature of reality wherein he lays bare his ontological position and allows us to understand the steps which led him to adopt this position. In Chapter 2 I uncover (in detail) the manner in which Popper's implicit ontological assumptions permeate his work, while never being given explicit recognition.

Ontological Objectivism in Sociology

The hypothetico-deductive belief that the facts and regularities of the social world have an independent ontological status, is expressed in the sociological literature when reference to 'reality' is made. Thus, for example, it is expressed in Doby's claim that

> Our knowledge never becomes complete, but it does continuously become a better approximation of reality. (1967: 40, my underlining).

Likewise it is expressed in Greer & Greer's claim that

> Social scientists do not have a 'truth' but a method by which they create their theories, their maps, and check them against reality. (1974: 13, my underlining).

An ontological objectivist position is also expressed in the sociological literature when concepts are regarded as adequately or inadequately representing the real phenomena which they are meant to represent. The concern with the 'internal validity' of operational concepts reflects a concern with whether the operational concept captures the real phenomenon adequately. This concern springs out of the belief that 'in reality' there are existent phenomena which sociologists must attempt to grasp with their conceptual symbols. Sociologists' concepts are regarded as valid to the extent that they correctly grasp the phenomena 'in reality'.

HYPOTHETICO-DEDUCTIVISTS' EPISTEMOLOGICAL OBJECTIVISM

The hypothetico-deductivists (like the inductivists) believe that knowledge of aspects of objective reality 'as it really is' is possible: Knowledge is not irremediably biased or tarnished through the presence of the subjective knower

during the knowing process. But while inductivists see inductive logic as the route to 'pure' knowledge, hypothetico-deductivists claim that it is through deductive logic that science is able to gather knowledge of objective reality. It is through the application of the hypothetico-deductive scientific method that we are able to discover and correct our mistakes and thus increase our knowledge. Popper claims that it is through the application of this method that we possess the knowledge, for example, that

> What had been believed to be a chemically pure compound was actually a mixture of chemically indistinguishable but physically very different compounds ... (Popper, 1973: 375, my underlining).

In other words, Popper believes that through the application of hypothetico-deductive science, we have gained value-free knowledge about the reality of compounds - we have attained 'pure' information about what is actually (in objective reality) the case.

Likewise, Popper claims that through the application of this methodological approach in sociology that "we come to possess a great deal of experimental knowledge of social life" (Popper, 1957: 85, my underlining).

Popper's epistemological objectivism is expressed in his belief that we possess knowledge of (some of) the laws of social life and that the aim of technological social science is to find (gain knowledge of) all those facts which would be indispensable as a basis for everyone seeking to reform social institutions" (1957: 45, my underlining). This same type of epistemological objectivism is evident in sociological writings which regard sociology as being able to uncover and gain knowledge of social regularities (either as a purely 'theoretical' enterprise, and/or for the 'practical' purpose of offering pertinent sociological

truths' which are of use to policy makers).

(In Chapter 2 I discuss the conventionalist epistemological subjectivist position in contrast with (inductivist and hypothetico-deductivist) epistemological objectivism. In comparison with the epistemological subjectivist position, the nature of epistemological objectivism is clarified.)

Justification of the Epistemological Objectivist Position

The hypothetico-deductivists believe that they are justified in claiming that through the scientific enterprise we 'get nearer to the truth'. The justification of this epistemological objectivism lies in the fact that the 'court of appeal' for scientific theories is empirical observation, or more precisely, statements about empirical observation. Hypothetico-deductivists admit that scientists may always err, because the truth-value of the 'basic statements' which constitute the empirical basis of science can never be definitely known - we can never definitely know whether a basic statement is true (in which case it does mirror real world data adequately) or false (in which case there is a lack of correspondence between our statement and the events it hoped to describe). Nevertheless hypothetico-deductivists claim that despite this empirical uncertainty

> "we have in many cases (especially in cases of critical tests deciding between two theories) a fair idea of whether or not we have in fact got nearer to the truth".
> (Popper, 1973: 377).

In other words, science is able to attain knowledge because empirical statements (whose truth-value is agreed upon by the scientific community) constitute falsifying or corroborative evidence for scientific hypotheses.

Justification of Epistemological Objectivism in Sociology

Hypothetico-deductivist sociologists recognise that the

truth-value of their operational hypotheses (which can be said to constitute the empirical basis of sociology) can never be definitely known: They acknowledge that whether or not there is a correspondence between these hypotheses and the factual state of affairs which they are meant to describe, is uncertain. The 'confidence interval' which is used when conducting statistical tests of operational hypotheses, refers to the amount of error which the researcher expects to incur when stating the truth-value of the hypothesis.[6]

Gibbs (1972: 296) states this problem of uncertainty in sociology in the following manner:

> In testing an hypothesis it might appear that the actual relation between sets of referents (variables) is known and hence the hypothesis is either consistent or inconsistent with that 'fact'. The matter is not that simple ...

Gibbs notes that the most that sociologists can do, is say whether the hypothesis is consistent with a "descriptive statement that stipulates a value as representing the association between two sets of referents" (1972: 296). All that they can know is that the hypothesis is consistent or inconsistent with a statement about facts; they cannot know that it is consistent or inconsistent with 'the facts'. Theories are not assessed by reference to 'immediate experience' but are assessed "primarily through symbolization"

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6. There are different kinds of error which can be incurred, namely, the error of rejecting the null hypothesis when it is in fact true, and the error of accepting the null hypothesis when it is in fact false. Sociologists are normally more concerned to minimise the former error; some researchers may decide to minimise both the former and latter error, but to minimise the latter to a lesser degree, by choosing a wider confidence interval for this error.

(Gibbs, 1972: 292); that is, through statements which are "assertions about experience, not experience itself" (1972: 291).

Following Popperian-type reasoning, sociologists claim that despite this problem to which Gibbs draws attention, the sociological enterprise is able to attain knowledge because sociologists make a decision as to the truth-value of their operational hypotheses. Hypothetico-deductivist sociologists claim that we are able to falsify theoretical statements and are thus led to modify our theories because certain accepted operational hypotheses (i.e. accepted as true) contradict the theories; by making such modifications we have a fair idea that we have 'got nearer to the truth'.

CONCLUSION

From my description of inductivism and hypothetico-deductivism, the following common features of these two accounts of science have emerged:

1. Both inductivism and hypothetico-deductivism embrace an ontological and epistemological objectivism: Their ontological objectivism consists in their equation of 'reality' with that which exists independently of human subjects, i.e. with a set of objectively existing facts and laws (in both the natural and social realms). Their epistemological objectivism consists in the fact that 'knowledge' is defined as a replication of objectively given reality. Knowledge is defined as having been attained when there is a correspondence between what is asserted to be the case and what 'in (objective) reality' is the case; the central task of science is to discover a methodology which ensures that the presence of the subjective knower does not irremediably bias the content of his theories and

render them an 'impure' reflection of reality. Inductivists believe that knowledge is guaranteed when scientific theories are built up out of 'protocol' statements, i.e. statements which convey immediately given information because the terms of the statements map directly onto sensory experiences. For the hypothetico-deductivists, progression towards greater knowledge is guaranteed by virtue of the fact that theories are always tested with reference to the empirical realm.

2. Both inductivism and hypothetico-deductivism espouse a methodological unity of the physical and social sciences. Comte's introduction of (inductivist) 'positivism' into the social sciences and his hope to render sociology 'scientific' by transferring natural scientific methods to sociology, is echoed in Popper's belief that the subject matter of the social sciences is not intrinsically different from that of the natural sciences and must be studied via the same methodology: Both inductivism and hypothetico-deductivism claim that it is the natural scientific methods alone which allow knowledge to be attained.

It is important to note that it is because they define reality - whether physical or social - as objectively given fact, and knowledge as the replication of objectively given fact, that inductivists and hypothetico-deductivists insist on transferring the natural scientific model to the social sciences.

Having shown that hypothetico-deductivism does not depart significantly from inductivism, I wish to offer a definition of positivism which embraces both inductivism and hypothetico-deductivism and which reflects their common features: I shall define positivism as "that methodology which embraces an ontological and epistemological objectivism and which

justifies its epistemological objectivism by claiming to rest on an empirical basis". This definition allows us to label much current sociology as positivistically oriented, while Popper's 'narrow' definition of positivism as Vienna Circle type inductivism[7] would imply that sociology has by and large transcended positivism. It is important to recognise the sense in which much sociology is still positivistically oriented, for otherwise Habermas and Marcuse's critique of positivism in sociology appears outdated: Highlighting the common features of inductivism and hypothetico-deductivism and placing both under the positivist rubric, helps to draw attention to the relevance of Habermas and Marcuse's critique of positivism.

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7. Popper argues (1977: 290) that hypothetico-deductivism should not fall under the same category as Vienna Circle inductivism - which he equates with positivism - because, unlike inductivism, hypothetico-deductivism allows speculative thought.

AN EXAMINATION OF THE THEORETICAL LACUNA IN POSITIVISM

INTRODUCTION

In Chapter 1, the main features of inductivist and hypothetico-deductivist positivism were described and it was demonstrated that hypothetico-deductivist positivism is widely embraced in sociological literature and research. Chapter 2 offers a critique of hypothetico-deductivism (and is thus indirectly a critique of the hypothetico-deductivism imbuing sociology). The critique concentrates chiefly on hypothetico-deductivism as argued for by Popper and Hempel, who attempt to offer an impeccable account of the adequacy of hypothetico-deductive logic, and whose arguments sociologists draw on when justifying the hypothetico-deductivist mode of procedure.

In criticising the hypothetico-deductivist approach, I point out inadequacies in hypothetico-deductive logic as applied either in the natural scientific or social scientific enterprise; I do not offer a distinct critique of hypothetico-deductivism in the social sciences as opposed to its manifestation in the natural sciences. My reason for treating hypothetico-deductivism in the natural and social sciences as embodying the same theoretical lacuna, is that hypothetico-deductivists espouse a methodological unity of the natural and social sciences, and employ the same 'logic' to justify the natural and social scientific enterprises. My critique is based on revealing the implicit ontological and epistemological assumptions that all hypothetico-deductivist arguments presuppose, and on pointing out a viable alternative ontology and epistemology.

My arguments take the form of exposing the implicit foundations of hypothetico-deductivism and questioning their validity in the light of the conventionalist ontology and epistemology. The conventionalist ontology and epistemology is explicated and elaborated, and is presented as a viable alternative account of both the 'logic of science' and the 'logic of ethics'.

The chapter is divided into three main sections: The first section deals with hypothetico-deductivists' account of the empirical basis of science; the second, with their account of theoretical entities and laws; and the third, with their account of the fact/value distinction.

In the first section I point out that hypothetico-deductivists' definition of the 'empirical basis problem' as an epistemological problem of uncertainty, already embodies both an objectivist epistemology and an objectivist ontology. The objectivist epistemology is manifested in the definition of epistemological problems as problems of how knowledge can be gained in the midst of uncertainty with respect to the truth-content of factual statements. Furthermore, the epistemological objectivism of hypothetico-deductivism implies an objectivist ontology and is inextricably linked thereto. Thus although hypothetico-deductivists would deny the relevance of discussing 'metaphysical' questions about the nature of 'being' - claiming that these are 'meaningless' and 'unscientific' - they have not thereby successfully skirted ontological issues: By refusing to engage in philosophical discussions about ontology, their implicit ontology has been 'smuggled in', unnoticed, unclarified and unjustified.

The questionable nature of the hypothetico-deductivist epistemology and ontology becomes apparent when counterposed with the epistemological and ontological subjectivism espoused by conventionalists: For conventionalists the

knowing process is a process in which subject and object are inseparable, the known 'object' being at once a 'subjective' constitution. This epistemological subjectivism in turn implies an ontological subjectivism: The objects which 'have being' are not objectively 'given', but are generated through the subjective process of reality constitution.

In the second section of this chapter, where theoretical entities and laws are discussed, I again point out how the hypothetico-deductivists' epistemology and ontology, forms the (questionable) foundation of their arguments. I note that Hempel, in arguing for the 'real existence' of theoretical entities, illegitimately equates the position of fictionalists - who in principle could espouse a conventionalist epistemology and ontology - with the position of sceptics - who are merely uncertain as to which scientific theory is the true or truest one, and who adopt a hypothetico-deductivist conception of 'truth'.

Popper also performs an illegitimate equation when he equates the position of relativists - who raise questions as to what 'truth' is - with the position of sceptics - who accept a Popperian correspondence theory of 'truth'. By placing relativists and sceptics under the same conceptual category, Popper is able to reinforce his claim that everybody knows what truth is, and to ignore the arguments of those who question the Popperian definition.

After exposing Hempel and Popper's illegitimate intellectual strategies in detail, I point out how conventionalists would treat theoretical entities and laws and I offer an example from sociological literature in which I contrast the hypothetico-deductivist with the conventionalist approach.

In the third section dealing with the problem of facts and values, I concentrate on Popper's arguments for the claim

that factual and value statements differ in logical status. I note that Popper's dualism of facts and values ultimately rests on the arbitrary and questionable contention that while facts are found in nature, standards are not so found. This contention can be counterposed by two alternative positions, viz:

1. The position that both facts and values are to be found in nature

   or

2. The position that neither facts nor values are to be found in nature.

Popper is unable to deal with the claims of either of these two positions without falling into vicious circularity.

The latter position represents the conventionalist alternative and it is this alternative which the chapter subsequently explores. The consequences for sociology of the rejection of the positivist fact/value dualism and of its replacement by conventionalism, are then outlined.

THE EMPIRICAL BASIS PROBLEM

POPPER

Popper characterises the "problem of the empirical basis" (Popper, 1962: 93) as springing out of the fact that the (natural and social) sciences lack a neutral language of observation. This lack of a neutral language of observation means that "there is no pure 'data', no empirically given 'sources of knowledge' to which we can appeal in our criticism" (Popper, 1973: 388): Popper notes that every

scientific description, because it contains symbols and names and ideas, is irreducible to pure data - i.e. to empirically given immediate experience; experience, or observation, is always theory laden. Thus Popper recognises that even the basic statement, say, "Here is a glass of water" cannot be verified by observational experience. Whether or not the scientific community accepts this 'basic statement' as true or false, ultimately depends on a decision of this scientific community. Popper likens this process of scientific decision-making, to a jury's decision: "By its decision, the jury accepts, by agreement, a statement about a factual occurrence - a basic statement, as it were" (Popper, 1962: 109). The fact that the scientific community is never certain whether its basic statements are true or false, means that the empirical foundation on which scientific theory rests, is not a solid 'rock bottom'; the empirical basis of science is problematic because basic statements are not self-evidently true or false, but rely on a scientific decision for their acceptance or rejection - a decision which at times turns out to be mistaken.

The weakness in Popper's account of the 'empirical basis problem' is that he takes for granted the objective ontological status of the facts which scientific 'basic statements' describe. Popper takes it for granted that the basic statements of science are statements about factual occurrences. They are statements about something that is or is not happening in the objective world. By deciding to accept or reject one of these statements we open ourselves to the possibility of error; if the statement does correspond to the facts, we have mistakenly rejected it. The problem of the empirical basis thus becomes for Popper the problem that we can never be certain whether any particular scientific statement, including a 'basic statement' is correct. It is the problem that we can never know with certainty whether we have erroneously rejected a true basic statement or accepted a false basic

statement. The lack of a neutral language of observation thus amounts to a problem of uncertainty with respect to the basic statements of science. It amounts to the fact that "science does not rest upon rock-bottom" (Popper, 1963: 111). This problem of uncertainty, Popper argues, does not hamper the progress of science, because the tentative acceptance of uncertain basic statements is sufficient to "carry the (theoretical) structure, at least for the time being" (Popper, 1962: 111). But it is only because Popper has reduced the problem of the empirical basis to a problem of uncertainty with respect to the correctness or incorrectness of the 'basic statements', that he is able to ensure us that the basis problem is surmountable and does not hamper the progress of science towards knowledge. The reduction of the empirical basis problem to an epistemological problem - the problem that we cannot know whether our basic statements are true - enables Popper to ensure us that the use of the hypothetico-deductive methodological approach (which is aimed at surmounting this epistemological problem), brings us closer to 'the truth'. Popper has not attempted to embrace the ontological issues that the empirical basis problem (potentially) raises. He takes it for granted that the empirical basis problem is an epistemological problem; he does not grapple with the ontological question of whether there is an objective reality of facts which 'basic statements' (correctly or incorrectly) describe.

Furthermore, Popper has an objectivist epistemological stance: He sees epistemological issues as revolving around the problem of "how we know that we know", that is, the problem of how we know when a particular statement really is a true reflection of objective reality. But the view that the only important epistemological issue is that we can never be certain that we know something to be the case 'in reality', presupposes an objectivist ontology. Thus the way Popper views the epistemological problem is

inextricably linked with his implicit ontology (which is here rendered explicit through a systematic critique of his epistemology). Because Popper simply accepts an epistemological objectivist position, his objectivist ontology likewise remains taken-for-granted and is never explicitly recognised by him as problematic: Had Popper admitted that epistemological issues may also embrace questions such as 'What is knowledge?' or 'To what extent do subject and object form a dialectical interaction in the knowing process?', he would be committed to clarifying his ontological stance.

HEMPEL

Hempel's account of the 'basis problem' is similar to that of Popper. Hempel notes that the link between the symbols appearing in science's empirical statements and the sense experiences which motivate the decisions to accept these statements, is always dubious. As Hempel puts it, the operational criteria by which the symbols appearing in these statements, are linked to sense experiences, are always subject to revision:

> As science progresses, the initially adopted operational criteria come to be regarded as affording only approximate characterisations of those concepts ...
> (Hempel, 1966: 96).

But Hempel, like Popper, does not regard the empirical basis problem as insurmountable: The fact that "scientific laws and theories may be based on data obtained by means of (erroneous) initially adopted criteria ..." (Hempel, 1966: 96) does not hamper the progress of science; science does not require a 'rock bottom' in order to proceed - it can proceed by building a theoretical bridge on 'temporary supports' and then "using the bridge as a

platform for improving and perhaps even shifting the foundations ..." (Hempel, 1966: 96).

Hempel falls into the same trap as Popper in unjustifiably reducing the empirical basis problem to the problem of uncertainty with respect to the correctness of the empirical statements which are used to test the laws and theories of science. Hempel takes it for granted that there is a correct way of linking the symbols appearing in empirical statements to sense experiences; he takes it for granted that the foundations of science - the empirical statements containing operationally defined symbols - can be improved so as to afford a better correspondence with objective reality. He regards the problems connected with the lack of a neutral language of observation as an objectivist epistemological problem, i.e. as the problem that we cannot know that and when any particular empirical statement of science corresponds with objective reality. Like Popper, he unjustifiably ignores the ontological questions that the empirical basis problem (potentially) raises.

GIBBS

Gibbs, in his book Sociological Theory Construction, discusses the implications of the so-called 'empirical basis problem' for sociology. He recognises that in sociology there is such a problem because observation is never undertaken with the aid of primitive terms (primitive terms being terms which "designate that which is experienced directly or immediately apprehended ..." (Gibbs, 1972: 38)). Gibbs argues that sociologists must reject the notion that some sociological terms should designate phenomena that can be experienced directly or immediately apprehended. He notes that sociological terms never designate that which is experienced directly, but only that which is known inferentially.

Gibbs' attempt to grapple with the empirical basis problem as manifested in sociology, characterises the manner in which hypothetico-deductivist sociologists justify the sociological endeavour with arguments similar to those of Popper and Hempel.

Gibbs, echoing the hypothetico-deductive style of argument employed by Popper and Hempel, notes that sociologists need not despair from the recognition that the field has no primitive terms. He argues that the inferential character of sociological terms is not an insoluble problem as long as rules of inference can be stipulated in definitions of these terms. The problem of the lack of primitive terms can be solved by making definitions which stipulate in what (empirical) conditions sociological terms can be applied, and by attempting to seek correct rules of inference in these stipulations.

But Gibbs takes it for granted that there is a correct way of relating concepts to objective reality, so that the rules of inference appearing in sociological definitions may be erroneously construed. The problem of the lack of primitive sociological terms thus remains for Gibbs the objectivist epistemological problem of uncertainty - the problem that we can never know whether any particular definition (which involves rules of inference) is being correctly or incorrectly applied to the phenomenon in reality which it designates. The problem remains the epistemological problem that "whether a definition distorts reality cannot be known outside the context of a theory" (Gibbs, 1972: 41). Gibbs, like Popper and Hempel, fails to explore the potential ontological implications which spring from the empirical basis problem . He unjustifiably takes it for granted that this problem is merely an instance of the epistemological 'dilemma of induction', a dilemma which arises from the fact that

"uncertainty is an inevitable feature of science ..." (Gibbs, 1972: 41).

A CONVENTIONALIST ACCOUNT OF THE 'EMPIRICAL BASIS PROBLEM'

In discussing the lacuna in the hypothetico-deductive account of the 'empirical basis problem', I pointed to the hypothetico-deductivists' taken-for-granted assumption of the objective ontological status of the facts which the 'basic statements' describe. In this section, I am going to elucidate an alternative (conventionalist) account of the 'empirical basis problem', an account which does not take the objective ontological status of factual occurrences for granted. By explicating this account in detail, I wish to draw attention to the unjustifiableness of the hypothetico-deductivists' unquestioned ontological assumptions: I wish to draw attention to the fact than an alternative set of assumptions is equally, if not more, viable.

In elucidating an alternative account of the 'empirical basis problem', I will draw mainly on the alternative account offered by Julius Kovesi and Stephen Toulmin. I will call Kovesi and Toulmin 'conventionalists' in order to differentiate their ontological position from that of the positivists.

Kovesi

Kovesi, in his book Moral Notions, argues that concepts - whether concepts used in everyday, scientific, or moral languages - do not designate phenomena in external reality. Concepts for Kovesi are not names for, or labels of, phenomena in the objective world. The objective world (or that which exists externally to, and independently of, human subjects), does not consist of phenomena onto which the concepts of

everyday, scientific, or moral languages can map. The objective world consists of raw sense data which are un-arranged and which only become arranged into phenomena through the activities nd purposes of human subjects. Thus Kovesi argues that our language (whether everyday, scientific or moral) is not about the objective world of raw data, but is rather about a world which is in part a human product. Kovesi argues that all concepts are alike in that they all refer not to things or events existing in the objective world, but to things and events which are created by human subjects out of the 'raw data' which present themselves to the senses.

As Kovesi puts it (1967: 19):

> There is (in objective reality) no value and there are no murders, tables, houses, accidents or inadvertant acts. But our language is not about that world in which there is no value or no tables, houses, accidents or inadvertant acts ...

Thus for Kovesi, the concept say, 'tableness' does not refer to something existing in the objective world: it is a 'formal element' which allows the community to group features of the world under the category 'table' because the grouping of these elements under the single category serves a certain purpose. Kovesi calls these features of the world which are selected and grouped under a single category, 'recognitors'. Recognitors can be regarded as the defining features of a thing which, when present, are sufficient conditions for its being classed under the name of a particular concept. Thus, in describing something as a table, I imply that it possesses the relevant empirical featurs (recognitors) which (the community has decided) need to be present in order that it may qualify to be called a table. Likewise when I call something a murder, I imply that it possesses the necessary relevant features which

(the community has decided) are sufficient condition for its being classified under this concept.

Kovesi argues that the community of subjects selects recognitors and groups them into a class (named by a word) in accordance with the "activities in which the word will play a role" (Kovesi, 1967: 43). The selection of specific recognitors cannot be regarded as right or wrong but can only be called suitable in terms of the activity in which the word will play a role .

Because Kovesi regards concepts as devices used by human subjects to work a manageable structure into the flux of 'raw data', there is for him no epistemological problem of never knowing whether a particular concept distorts reality and of never being sure whether a basic statement containing this concept corresponds with the facts. Kovesi does not regard the fact that there is an irreducible gap between empirical sense data (recognitors) and conceptual symbols, as an objectivist epistemological problem - he sees this gap as implying that there is no world of objective things and events, but only a world of partially subjective things and events; he sees the gap as implying that the reality which human languages describe, is a partial product of human subjects' purposes and activities.

Kovesi thus espouses an epistemological subjectivism along with an ontological subjectivism. Because 'the world' is not an objectively given relaity, the knowing process is never a process of mere reflection but is necessarily an active process of constitution.

Toulmin

Like Kovesi, Toulmin argues that the concepts used in everyday, scientific, or moral languages, reflect the logic of

the activity in which these concepts play a role. The validation of the use of concepts is not measured in terms of the dictates of external reality, but is determined by the usefulness of the concepts in the activity of which they form a part. Thus, say, scientific concepts are being validly or correctly employed, when they help further the "activity which we call science" (Toulmin, 1968: 101), an activity which is aimed at "basing our expectations upon experiences of the past" ... (1968: 101).

In order to elucidate his ontological position, Toulmin uses the example of the scientific concept 'straightness'. He argues that, in science, the correct or valid appellation of something as 'straight', is determined by the corresponding scientific explanation:

> If the corresponding explanation is a good one, there is good reason for saying 'This is really straight'. And when there are two equally good explanations there may be nothing to choose between saying 'This is really straight' and 'This is really bent' (1968: 110/111).

Toulmin argues that it is mistaken to believe that 'in reality' the thing being spoken about either is or is not straight. He attacks the positivists who suppose that:

> No mere change in theory could account for the difference between something's being ... not straight - that the difference must be a 'physical' difference (1968: 109).

Toulmin argues that the only 'realities' are the realities created by human subjects. It is for this reason that the question 'Is it <u>really</u> straight?', when two equally good scientific theories (each with its own standard of straightness) can explain the phenomenon, is misleading. There is no real answer to this question; the only real answer could be "Call it which you like" (1968: 109). For Toulmin the criteria for the valid use of scientific concepts are determined solely by the concepts' use in an explantory theory, and the truth of the attendant statements containing these concepts is not

simply a matter of their correspondence with the facts. The 'basic statement' "This stick is really straight", is not true if the stick really is straight in 'physical' objective reality. The statement is true if an explanation for the phenomenon in terms of a theory using a definition of straightness with which the stick complies, can be found.

Toulmin's attempt to cope with the problem that all concepts - including the concepts appearing in 'basic scientific statements' - are not reducible to the criteria for their proper use, leads him, along with Kovesi, into examining the assumption of the independent ontological status of the 'reality' that languages describe.

Furthermore, as with Kovesi, Toulmin's questioning of the objectivist ontological stance leads him to question the objectivist epistemological stance: Instead of seeing knowledge as representing a correspondence with objective 'reality', Toulmin sees knowledge as formed in the interaction between the community of subjects - in this case the scientific community - and the data presenting itself to the senses.

THE NATURE OF THEORETICAL CONCEPTS AND LAWS

The hypothetico-deductivists claim that theoretical concepts, like more 'concrete' concepts, refer to real entities in the objective world. The theoretical propositions containing these concepts are thus factual propositions referring to events occuring in objective reality. In Popper's terminology, 'universal' propositions are statements about 'factual occurrences', just as 'basic statements' are. I shall now examine the arguments of Popper and Hempel for accepting the reality of theoretical entities.

I will point out the gaps and flaws in their arguments, showing how they are unable to cope with the alternative ontology of the conventionalist position.

HEMPEL'S ARGUMENTS FOR THE 'REAL EXISTENCE' OF THEORETICAL ENTITIES

In defending the 'real existence' of theoretical entities, Hempel analyses three types of arguments against their 'real existence' and attempts to point out the weaknesses in these arguments.

Because I regard his critique of the first type of argument as legitimate, my elucidation of it will serve no purpose. It is his critiques of the two other types of argument which I wish to analyse, for it is these critiques which are inadequate and unconvincing.

The so-called 'second argument' which Hempel attacks, is the argument concerning the ability of different theories, with different postulated entities, to account for a given set of empirical phenomena. The argument is that:

> If 'real existence' is granted to the theoretical entities assumed by one of them, it must be granted as well to the quite different entities assumed by the other; hence the entities posited by none of the alternative theories can be actually held to exist.
> (Hempel, 1966: 80).

Hempel attacks this kind of argument by noting that although it may be impossible to distinguish between the theoretical terms which do refer to entities and the theoretical terms which, (like fictional terms) do not refer to entities, this does not imply that none refer to entities. Hempel argues that although two theories might equally well

account for a "given set of empirical phenomena" only one of the theories is true, and only the entities that it posits, are real. Scientists can never be certain that a particular theory is true, and thus that its posited entities are real, but this lack of certainty does not imply that theoretically postulated entities never refer to real phenomena. It only implies that scientists can never be sure whether or not the entities appearing in their theories, belong to the real world. Hempel correctly notes that inability to distinguish between true and false theories, only results in the problem of uncertainty with respect to the real existence of particular theoretical entities - it does not necessitate our regarding all theoretical terms as fictions. Hempel is thus able to attack the argument of those who leap from the inability to distinguish between true and false theories, to the conclusion that all theoretical entities are fictitious.

But it is important to point out that not all fictionalists' positions can simply be reduced to a scepticism concerning the truth of rival theories: Hempel's reduction of fictionalism to scepticism is illegitimate because not all fictionalists' ontological position is based on the (sceptical) argument that we can never be sure which among a rival set of hypotheses are true and which are false. Some fictionalists reject the idea that a set of hypotheses can be true in the sense of correctly mirroring objective reality. Their fictionalist position does not spring from the impossibility of telling which hypotheses are true and which are false, for they reject the idea that any hypothesis can be true (in the sense of corresponding with objective reality). It is in his incorrect characterisation of fictionalism that Hempel's Achilles' heel lies: By equating fictionalism with scepticism, Hempel has betrayed the fact that he is not able to deal with the arguments of those fictionalists who, in contrast to the sceptics, reject a correspondence theory of truth. He is unable to

successfully vanquish the position of fictionalists who adopt a conventionalist epistemology and ontology and a consequent conception of truth which differs from that of Hempel.

Although Hempel is adequately able to attack the fictionalists whose position can be reduced to scepticism, he has not dealt with the arguments of those fictionalists who reject the correspondence theory of truth and its attendant epistemology and ontology.

The 'third' kind of argument which Hempel attacks, is the argument that all scientific terms refer only to that which is "potentially accessible to our senses" (Hempel, 1966: 81). The argument is that:

> Hypotheses and theories that purport to go essentially behind the phenomena of our experience can best be useful formal devices, but cannot claim to represent aspects of the physical world. (Hempel, 1966: 81).

In attacking this argument, Hempel admits that these underlying theoretical entities are not immediately observable. But he disagrees that this implies that they are only formal devices invented to 'save the appearances'. He argues that the concepts in terms of which theories are couched, are observable through the interpretations which link them to experienced data. He argues that this type of 'observability' of theoretical entities is admittedly indirect observation but that this is not qualitatively different from the 'observation' of "more or less directly observable or measurable things and events" (1966: 81). Hempel is referring to the fact that even the 'more directly observable' entities of science are not immediately observed, but require some interpretation and use of understanding. He notes that even though these entities have not simply been immediately observed, we accept their existence.

Likewise we should accept the existence of the fictional entities which simply require more interpretation.

Lessnoff (1974: 28) summarises the Hempel-type solution to the problem of theoretically postulated entities:

> Sometimes the laws relating to unobservable entities may specify that, in certain circumstances, they will betray their existence by interacting with other matter so as to produce observable effects ... Some philosophers indeed deny that there is a real distinction between observable and unobservable entities in science - all are observable, though some in less direct ways than others.

The problem with the Hempel-type solution to the problem of theoretically postulated entities, is that it is based on the assumption of the objective reality of the 'more directly observable' things and events. Hempel conveniently assumes that these more observable entities do designate phenomena in reality, so that the measurement and interpretation involved in seeing them is right or wrong and more or less accurate. Hempel can then deal with the fictionalists who regard theoretical entities as dubious but who accept the existence of the more observable entities. Once we have accepted that in principle it is possible to designate phenomena in the real world with concepts incorrectly or correctly, it is a simple step to argue that as science proceeds, more indirect 'observation' is needed in order to infer the existence of more elusive entities. But Hempel does not consider the alternative conclusion that is implied by the recognition that there is a shady border line between more or less directly observable entities: This is the conclusion that both more directly and less directly observable things and events do not exist in objective reality independently of the purposes of human subjects; i.e. the conclusion that all the terms of science - the more and the less theoretical - "can at best be useful

formal devices but cannot claim to represent aspects of the physical world" (Hempel, 1966: 81).

POPPER'S ARGUMENTS CONCERNING THEORETICAL CONCEPTS AND LAWS

Popper's Attack on the Relativists and Sceptics

In the addendum to The Open Society and Its Enemies, Popper deals with the position of the relativists and sceptics cnocerning the nature of scientific theories. He summarises their position as follows:

> By relativism or, if you like, scepticism - I mean here, briefly, the theory that the choice between competing (scientific) theories is arbitrary ... (1973: 369).

Popper notes that:

> Certain arguments in support of relativism arise from the question, asked in the tone of the assured sceptic who knows for certain that there is no answer: What is truth? (1973: 369).

Popper claims that the problems posed by the relativists and sceptics, are related to the problem of the lack of a criterion for truth which would enable scientists to distinguish a particular true scientific proposition from a false one. Popper argues that although we lack a criterion for deciding whether a given statement is true or false, this does not imply that we do not know what truth is. He argues that everybody knows what truth is and everybody answers the question 'What is truth?' in the same way. The problem of what truth is, is a 'trivial matter', since "everybody knows what truth, or correspondence with the facts, means" (Popper, 1973: 370).

The problem with Popper's attack on the relativists and sceptics is that he unjustifiably conflates the relativist and sceptic position: Hypothetico-deductivism is well equipped to deal with sceptics, who merely claim that it is impossible to know when a particular scientific theory is true. The sceptic's argument is that we lack a criterion for deciding when a particular theory is true, and thus that it does not make sense to pursue the question of which answer is the right answer. Hypothetico-deductivists can legitimately argue against the sceptics that even though we can never be sure that a particular theory is false, this uncertainty does not necessitate our regarding the choices between theories as arbitrary and our quest for 'the truth' as in vain. But the questions posed by the relativists are not as simply dealt with by hypothetico-deductivism. The relativist position cannot be adequately dealt with by arguing that although we lack a criterion for truth, the quest for truth is not in vain. The relativist, unlike the sceptic, does not simply raise the epistemological problem of uncertainty which springs from lack of a criterion for truth. The relativist raises ontological issues concerning the nature of reality and of human language's relationship thereto. The relativist will thus not accept the definition of truth supplied by Popper, i.e. the definition of truth as correspondence with the facts. The relativist will argue that this definition of truth relies on the unjustified assumption that there is a factual reality existing independently of human beings, which human languages can mirror correctly or incorrectly. By regarding the meaning of truth as a 'trivial matter', Popper has ignored the ontological issues raised by the relativists and has betrayed his unwillingness to consider the alternative (subjectivist) ontology and epistemology which relativists support.

Popper's conflation of relativism with scepticism is significant because it allows him to deal with the relativist

position as though it, like the sceptical position, revolves around the problem of a lack of criterion for distinguishing true from false theories. But, as we have seen, Popper's categorising of relativists and sceptics under the same class, can be questioned, and then the gaps in Popper's attack on relativists and sceptics, become evident.

Popper's Critique of Conventionalism

Popper summarises the conventionalist position as follows:

> For the conventionalist, theoretical natural science is not a picture of nature but merely a logical construction. It is not the properies of the world which determine this construction; on the contrary, it is this construction which determines the properties of an artificial world. (1962: 79).

Popper believes that the problems arising out of the fact that there is no neutral language of observation can be resolved by establishing a methodology which takes recognition of this fact, but is still able to advance our knowledge. Popper sees conventionalism as having developed an inappropriate methodology to solve the epistemological problems raised by the fact that observation is 'theory loaded'.

Popper sees conventionalism as a methodology which is unable to cope with the epistemological question of how a method which allows science to get closer to the truth, can be established, given the fact that there is no neutral language of scientific observation. Having characterised conventionalism in this way, Popper is able to offer his attack against it by arguing that the methodology of the 'critical approach' is better able to advance our knowledge. Popper attacks conventionalism by agreeing with Black that the adoption of conventionalist methods "will please the

imagination but does not advance our knowledge" (Black, quoted in Popper, 1962: 82). In other words, Popper attacks the conventionalist position by arguing that 'conventionalist stratagems' are ill equipped to advance our knowledge and that the hypothetico-deductive 'critical method' is better equipped to do so.

But Popper has taken it for granted that it is possible to attain knowledge of an objective reality existing independently of human subjects and that the only problem is to develop an appropriate methodology which allows such knowledge to be gained. He takes it for granted that the only significant issue raised by the conventionalists is the epistemological issue of how knowledge of reality can be gained, given the lack of a neutral language of observation. Popper thus conveniently ignores the alternative questions raised by the conventionalists concerning the inherent impossibility of reflecting objective reality due to the nature of this reality. He conveniently ignores the alternative ontological position of the conventionalists which is responsible for the claim that the quest for objective truth is a wild goose chase with no goose. He ignores the (ontological) claim of the conventionalists that we need not assume that:

> there is some one full, objective, true account of nature and that the proper measure of scientific achievement is the extent to which it brings us closer to that ultimate goal.
> (Kuhn, 1970b : 171).

The conventionalists' refusal to "compare theories as representations of nature, as statements about 'what is really out there'" (Kuhn, 1970a: 265), cannot be reduced, as Popper hopes, to their failure to resolve an epistemological paradox adequately. Their refusal springs from an alternative conception of the nature of 'what is really out there',

a concept with which Popper's argument against conventionalism does not deal.

A further weakness in Popper's attack on conventionalism, is his conception of conventionalists as necessarily believing that only theoretical ('universal') and not 'basic' statements are accepted by the agreement of the scientific community. Thus Popper notes that "for the conventionalist the acceptance of universal statements is governed by his principle of simplicity" (1962: 109). Popper claims that he "differs from the conventionalist in holding that the statements decided by agreement are not universal but singular" (1962: 109). But Popper's characterisation of conventionalism is inaccurate. Conventionalists like Toulmin and Kuhn argue that all scientific statements - whether 'basic' or 'universal' - are accepted on the basis of their furthering the purposes of the scientific enterprise and are not simply statements about 'what really is out there'. It is significant that Popper sees the conventionalists' stance as only applying in the case of 'universal' statements, because then it becomes possible for Popper to use the Hempel-type argument against them, i.e. the argument that the theoretical entities referred to in a theory are as real as the entities appearing in basic statements. Once Popper has characterised the conventionalists as accepting that there is an objective reality which 'basic statements' in scientific languages can mirror, it is easy to argue that universal statements should also be regarded as capable of mirroring objective reality. Popper's argument against conventionalism becomes more difficult, however, if the conventionalist stance holds with respect to both basic and universal statements, as it does in the work of, say, Toulmin and Kuhn.

Popper's Critique of Kantian Subjectivism

Popper recognises that the conventionalist position is similar

to the Kantian idealist position that "sought to explain this simplicity (of the laws of nature) by saying that it is our own intellect which imposes its laws upon nature" (1962: 79). He recognises that the Kantian idealist position is similar to the conventionalist one in that both hold that the facts and laws of nature are partially our own inventions and can never simply reflect reality 'as it really is'.

Popper's treatment of Kantian idealism is similar to his treatment of conventionalism. He argues that Kant himself believed in, and hoped to find, objective truth, but was unable to resolve the epistemological paradox connected with the fact that there is no neutral language of observation. Popper claims that:

> Kant believed in the possibility of finding the truth ... (and that) it was only the need to explain the paradox of the existence of an a priori science of nature which led him to adopt (his) subjectivism ...
> (Popper, 1973: 383).

Before examining the validity of Popper's claims concerning Kant's intentions, it is necessary to examine the Kantian position in more detail. Kant's doctrine is that it is impossible to attain any knowledge of 'things in themselves' i.e. of reality 'as it really is'. The discoveries of science must be regarded as in part a product of a priori 'concepts of the understanding' and 'forms of perception' which supply the framework within which nature can become intelligible to us. Kant argued that the necessary conditions for the world being known and experienced by us, is that the mind supplies a priori categories in order to organise the a posteriori content of perception into an intelligible system of laws. The question which led Kant to adopt his idealist stance was the question of why the objects of experience (including scientific experience)

should conform to our 'forms of understanding' and 'forms of perception' - i.e. why objects should conform to the a priori concepts and categories supplied by our faculties of understanding and perception. Kant answered this question by arguing that what we know is a world which has already been shaped and organised so that it will correspond to these a priori forms. The objects of our experience are thus not reality itself (to which only the passive part of our senses has access) but the way in which externally given reality appears to us so that it is intelligible for us. For Kant it is inconceivable that the forms of our cognition allow us to grasp aspects of reality itself:

> We are not concerned here with things-in-themselves ... but only with things as objects of possible experience, and the totality of these things is what we properly call nature.
> (Kant, 1953: 54).

For Kant, the aim of science could not be the discovery of objective reality because reality itself was not a structure of facts and necessary relationships between these facts; any 'discovery' of this structure could only be a discovery of something other than reality. Kant thus differs from Popper in his ontological stance: While Kant regards externally given (a posteriori) reality as a reality which cannot in principle be grasped by the language of science, Popper takes it for granted that the external world is such that it can be grasped by science.

The problem with Popper's treatment of Kant is that he fails to consider Kant's alternative ontological position seriously. The problems raised by Kant of what is in the world and what the world looks like, are not adequately embraced by Popper. He takes it for granted that the a posteriori world - that which exists externally to human subjects - is a world of facts and regularities which merely need to be deciphered by the language of science.

Because Popper does not take Kant's ontological position seriously, he assumes that this paradox can be resolved without resorting to an ontological subjectivism. The problem is that Popper assumes that it was simply failure to resolve this epistemological paradox which led to Kant's alternative ontological position. Yet it is only because Popper treats Kant's ontological position as arising out of the epistemological problem of how an a priori science can discover objective truth, that he is able to attack the Kantian ontology and cling to his own ontological position. But now the vicious circularity of Popper's attack on Kantian subjectivism becomes apparent: He attacks the Kantian subjectivist ontological position which claims that the a posteriori world does not and cannot conform to our conceptions and theories, by taking it for granted that the a posteriori world can conform to our conceptions and theories, i.e. by taking it for granted that the only problem is to solve the epistemological paradox by developing an appropriate methodology to discover (mirror) this world.

Popper's treatment of Kantianism embodies the same lacuna as his treatment of conventionalism. Both treatments reveal the attempt to interpret a fundamentally non-Popperian conception of the nature of the world and of knowledge[1] as intrinsically similar to the Popperian conception. Both treatments betray Popper's refusal to consider the viability of a subjectivist ontology and epistemology.

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1. Although Kantianism and conventionalism hold similar ontological and epistemological stances, they differ on the following point: While for Kant, science only embodies one set of a priori forms, for the conventionalists, different scientific theories may embody different a priori forms, that is, different sets of heuristic devices to work a manageable structure into the a posteriori elements of our world.

THE CONVENTIONALIST ACCOUNT OF THEORETICAL CONCEPTS AND LAWS

Having shown that Hempel and Popper's hypothetico-deductivism is ill equipped to argue against the conventionalist stance concerning the nature of theoretical concepts and laws, I am now going to elaborate on this stance in more detail. In order to elucidate the conventionalist view of theoretical concepts and laws, I am going to draw on two examples, offered respectively by Toulmin and Kuhn.

Toulmin

In the first section of this chapter, I pointed out that Toulmin regards the valid application of the concept 'straightness' to a phenomenon, as dependent on the standard of straightness used in the 'corresponding (theoretical) explanation' of the phenomenon in question. Toulmin argues that the scientific optical theory, which is built around the theoretical concept of a 'light ray', determines the criteria for deciding whether, say, a stick in water is really bent or really straight. It is Toulmin's view of this theoretical concept 'light ray' which I now wish to examine. Toulmin argues that the theoretical concept 'light ray' is invoked by scientists because it is able to afford an explanation of particular phenomena (for example the phenomenon of the straight stick), showing that they 'were to be expected'. Because for Toulmin the conceptualisation of the phenomenon of the stick as straight, is not determined by physical reality, the theoretical concept invoked to explain the straightness should also not be regarded as an aspect of reality. The theoretical concepts used to explain (categorised) 'concrete' phenomena are inextricably linked to the categorisation of these phenomena, and neither theoretical concepts nor categorised phenomena are existents 'in objective reality'.

The valid use of both 'concrete' and 'theoretical' concepts, is not determined by their having referents 'in reality'. The problem for scientists is not to seek an explanation of real concrete phenomena in terms of real theoretical existents. Using the stick example, the problem for scientists is not to determine whether the straightness of the stick really is due to the operation of light rays, but rather to decide that both the (concrete) concept 'straightness' and the (theoretical) concept 'light ray' can be usefully applied in these circumstances. Thus Toulmin rejects the position of those philosophers of science who address "questions about the empirical truth, falsity, or degree of probability of theoretical principles" (1970: 170). He argues that the:

> operative issue (for scientists) is to establish in what sorts of empirical situation, and on what conditions, any particular theory - with all its associated concepts and representation techniques - will serve the explanatory purposes for which it was introduced ... (The operative issue is to determine) in what empirical situations the propositions of the corresponding theory hold good - not 'whether they are true'. (1970: 171).

Kuhn

Kuhn's way of viewing theoretical entities is similar to Toulmin's. Like Toulmin, he argues (1970a: 274) that adequate conceptualisation of 'concrete' objects is not dependent on 'objective reality' and that 'reality' as scientists know and discover it, is a 'language-conditioned' world. Furthermore, he agrees with Toulmin that the categorisation of 'concrete' phenomena into similarity classes, is inextricably connected with the types of theories which are used to explain these phenomena. In order to elucidate his position, Kuhn considers the pendulum phenomenon and its explanation in terms of the theoretical concept

'impetus'. Kuhn notes (1970b: 123) that use of the theoretical concept 'impetus' was bound up with the categorisation of the 'swinging stone' as a pendulum. It was because the swinging stone was viewed as, and classed under the concept of, a 'pendulum', that the theoretical concept 'impetus' could afford an explanation of the phenomenon. Categorisation of the phenomenon as a pendulum was a heuristic device that went hand in hand with developing a theory (and theoretical concepts) to explain the phenomenon. But the categorisation was not correct in the sense that 'in objective reality' this was a pendulum; the categorisation simply allowed the scientists to classify the phenomenon in such a way that an adequate explanation of it and similarly classified phenomena, could be found.

Kuhn notes that prior to the classification of the 'swinging stone' as a 'pendulum', such that it could be regarded as an instance of the operation of the theoretical entity 'impetus', it was categorised under the term 'constrained fall', and explained through the use of different theoretical concepts. Kuhn argues that the switch from regarding objects as belonging to one 'similarity class' (and using the attendant theoretical concepts to explain them), to regarding objects as belonging to a different 'similarity class' (and applying different theoretical concepts to explain them) is a 'paradigm switch'. This 'paradigm switch' creates a new world for the scientist in that his world consists of new 'concrete' and 'theoretical' entities. The new world which the new scientific language creates for the scientist does not, however, bring him closer to objective truth. Scientific languages can never mirror the objective world more or less adequately, the objective a posteriori world being different in kind from the 'language-conditioned' world of the scientist.

Implicit in Toulmin's and Kuhn's examples to demonstrate the

lack of objective ontological status of theoretical entities, is an alternative connection between theoretical laws and testable (empirical) hypotheses: Instead of seeing the relationship as a deductive relationship such that if the more universal (theoretical) law is true, then the less universal (testable) instance of the law should be true, conventionalists see the relationship in a different way. The relationship between theoretical laws and the empirical laws that they explain, is such that the empirical laws are read as, rather than are instances of the theoretical laws. For the conventionalist, the validity of the derivation downwards from theoretical terms and laws to testable hypotheses, or upwards from such hypotheses to the body of theory, is determined by whether it is scientifically useful to regard the theoretical laws as applying to the empirical phenomena. The connection between the theoretical and empirical laws of a science is not determined by a logic of classes, where empirical laws are subclasses of theoretical ones. Nor is this connection an empirical one which is captured correctly or incorrectly in an empirical assertion which describes the connection.

Because the validity of the connection between theoretical and empirical laws, like the validity of the connection between 'theoretical' and 'concrete' entities, is determined solely by the purposes of the scientific enterprise, the instances of theoretical laws say nothing about the truth of these laws; all that they say is that the theoretical laws can be regarded as applicable to, and as holding good in, these empirical instances.

A Conventionalist Treatment of Sociological Theoretical Concepts

I have thus far elucidated the conventionalist alternative conception of theoretical terms and of the nature of the relationship between theoretical and empirical laws, as

applied both in the natural and social sciences. I will now use an example of Greer and Greer to provide a concrete instantiation of the differences between the hypothetico-deductive and the conventionalist accounts of the social scientific enterprise:

Greer and Greer (1974: 16), in keeping with the hypothetico-deductive mode of approach, argue that the theoretical proposition that "It is human nature to test the limits of experience" can be tested for its truth- or falsity-content by using the deductive form of argument. Using impeccable logic, the 'test implications' (in the form of operational hypotheses) are deduced, and if the test implications are true, this lends support to the truth of the theory. As Greer and Greer put it:

> We decide, on a logical basis, what kinds of observable things ought to be true if the theory is. We predict that these things will be true and look to see if they are. (1974: 17).

Thus in checking the truth of the theoretical proposition that "It is human nature to test limits", we decide that "As drug use is one manifestation of a human need to test limits, all persons who use marijuana will progress to more dangerous drugs" (1974: 17).

Once this testable research hypothesis has been formulated, the researcher must operationalise the concepts in this hypothesis in order to form an 'operational hypothesis'. The researcher must, for example, look at the concept 'marijuana user' and "decide what kinds of observable things would indicate its presence. What evidence will you believe indicates a person falls into one or another drug use category?" (1974: 17).

For Greer and Greer, then, the validity of the social scientific enterprise is based on:

1. The correct deduction (in terms of a logic of subclasses), of empirical research hypotheses which will instantiate theoretical propositions. (This involves the correct empirical interpretation of abstract theoretical concepts like 'limit testing'.)

2. The correct operationalisation of the concepts appearing in research hypotheses. (This involves finding the indicators in a valid fashion such that they really do indicate the presence of the concepts.)

Faced with the example offered by Greer and Greer to demonstrate how the sociological enterprise proceeds, the conventionalist would offer the following attack:

The conventionalist would claim that it is unjustifiable to regard the theoretical concept 'limit testing' as in principle capable of referring to an existent in the objective a posteriori world; that it is unnecessary to consider the objective world as consisting of things and events of which this concept may be a label. While Greer and Greer would argue that the truth of the theory of which this concept is a part, implies the existence of the concept, the conventionalist would argue that the 'truth' of a theory only makes an oblique reference to the objective world - truth is measured not in terms of the happenings in this world, but in terms of the purposes of human beings engaging in the scientific enterprise. Thus the acceptance of the truth of a theory does not guarantee the existence of theoretical concepts, but only refers to the suitability of using these concepts to work a structure into the a posteriori objective world in such a way that the mission of the scientific enterprise is furthered. The concept of 'limit testing' allows us to explain and/or predict

the behaviour of individuals who have been categorised as drug users and as moving from less to more dangerous drugs. The concept 'limit testing' thus serves a useful purpose in allowing an explanation of our (categorised) experience in the social world.

Unlike Greer and Greer, the conventionalists would claim that the categorisation of drug users is not correct or incorrect in terms of some objective social reality. They would argue that the (scientific) placing of individuals under conceptual categories reflects scientific purposes. If particular forms of categorisation aid such purposes and offer theoretical explanatory insight, then this is valid or correct use of concepts. (Just as the correct placing of the swinging stone under the concept 'pendulum' is determined by the explanation of it in terms of impetus theory, so the correct placing of a person with particular behaviour modes under the category 'drug user' is determined by whether a suitable explanation of this can be found.) Thus the conventionalist would argue that the search for valid indicators of concepts in research hypotheses which allow sociologists to grasp phenomena in reality, is in vain. The only quest which is not a wild goose chase with no goose, is for indicators of concepts which the scientific community declares as 'measuring' these concepts because such a declaration serves scientific purposes.

For the conventionalist the validity of the sociological enterprise is not based on the discovery of objective reality through the correct deduction of research hypotheses and the correct categorisation of empirical phenomena. It is based on the creation of a scientific reality of (theoretical and concrete) entities whose ontological status depends on the scientific enterprise and its purposes.

THE FACT/VALUE DISTINCTION

In this section I will offer a detailed attack on Popper's arguments concerning the difference between facts and values and on his attendant account of the nature of values. I am attacking Popper's position in detail because it is the proposed Popperian-type distinction between facts and values, which positivistically oriented natural and social scientists use in order to justify their quest for value-free discovery of the facts of natural and social life.

The quest for scientific value-freedom is justified by the claim that values are irrelevant for the proper advance of scientific studies because values do not exist in the world which the scientist sets out to discover: The (natural and social) scientist sets out to discover 'the truth' concerning the facts and laws in the world. The predicate 'truth' does not, however, apply to value judgments because these judgments do not refer to an objective reality, as do scientific statements.

The Popperian position concerning the asymmetry between facts and values, is echoed in Max Weber's conception of the problem of value-freedom in sociology: For Weber, the existence of the subjective values of the social scientist, does not imply that value-free knowledge of social reality is impossible. All that it <u>does</u> imply is that "scientific procedures, experiments, etc., should be well adapted to discovering facts" (Lessnoff, 1974: 133). For Weber, the logical disjunction between facts and values implies that a value-free social science is logically possible. The values of the social scientist do not necessarily hinder his ability to grasp the social data existing externally to him (even though this data consists of the values and meanings of human subjects in society). For Weber, "the rightness or wrongness of ... value judgments is irrelevant

to the truth or falsity of statements of fact ... (including the facts about human subjects' meanings and values)" (Lessnoff, 1974: 133).

The position of Weber with respect to the possibility of a value-free science of social subjects, is accepted by hypothetico-deductive type sociologists, who, like Weber, regard the values of human subjects as possible data which the sociologist may attempt to grasp.[2] In the words of Goode and Hatt:

> Value judgments constitute a large share of social science data... Values are major determinants of human behaviour and hence major areas for study by social science (1952: 25).

POPPER'S ATTEMPT TO RE-OPEN THE GULF BETWEEN FACTS AND VALUES

Popper argues against the moral positivists who claim that "we never have to transcend the realm of fact" (Popper, 1973: 392) and who oppose the dualism of facts and standards. Popper argues that the reason for rejecting this position is very simple: "We can always ask whether a development as here described ... (a social, political or historical fact) was 'good' or 'bad'". Popper believes that in re-opening the question of whether any particular social,

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2. Hypothetico-deductivists would disagree with Weber's contention that social understanding requires adequacy on the level of meaning; they would disagree that a scientific causal explanation of human behaviour requires a further understanding of the motives guiding that behaviour. Rather, the hypothetico-deductivists would contend that values are just another type of variable in terms of which one can formulate general laws. As Gibbs puts it:

> Conceivably, one can formulate universal assertions about the relation between nonpsychological properties of social units (such as the degree of urbanisation, the division of labour) and the prevalence of particular types of motives, perceptions, or values in social units (1972: 73).

political or historical fact is good or bad, he shows that values cannot be defined in terms of facts and that 'goodness' or 'badness' is not reducible to the realm of fact. He believes that being able in principle to ask whether any fact is 'good' or 'bad', shows that the world of facts differs in ontological status from the world of the standards used to evaluate the facts: Popper feels that he has satisfactorily proved that

> the regulative idea of absolute 'rightness' or 'goodness' differs in its logical status from that of absolute truth. (Popper, 1973: 385)

because the predicates 'right' and 'good' refer to a subjective reality while the predicate 'true' refers to the objective world of facts.

In replying against Popper's use of what Frankena (1963: 82) calls "the open question kind of argument" I will show how Popper's argument is unconvincing in the light of his account of the uncertain nature of scientific facts and theories. I will contend that the gap between values and facts which Popper discovers when analysing value judgments, is no different from the gap (which he recognises to exist) between facts and facts in the scientific realm. Nevertheless, Popper sees the former gap as implying a difference in ontological status between values and facts, but the latter gap as merely implying an epistemological uncertainty. I argue that if Popper were to use the same reasoning in analysing value judgments as he does when analysing the scientific enterprise, he would not be able to 'prove' his dualism through the use of 'the open question argument'.

Popper, in elaborating on his hypothetico-deductivist account of the scientific method, claims that there is an irreducible gap between immediate knowledge given to the senses and mediate knowledge expressed in language. All scientific

statements, because they contain symbols, "go far beyond what can be known with certainty 'on the basis of immediate experience'" (Popper, 1962: 94). Thus even "the (basic) statement 'Here is a glass of water' cannot be verified by any observational experience" (1962: 95). Likewise, Popper admits that the evidence (in the form of 'basic statements') supporting the laws and theories of science, is never sufficient to justify the dogmatic acceptance of these laws and theories. The laws and theories must always be regarded as 'tentatively corroborated'.

In Popper's own scheme, the observational evidence supporting a 'basic statement' can always be questioned for its ability to justify our acceptance or rejection of the statement. Likewise in Popper's scheme the evidence (in the form of 'basic statements') which are used to support 'universal' theoretical statements, is always in doubt. But this gap between the evidence supporting factual statements (whether 'basic' or 'universal' statements), and the statements, only leads Popper to admit that the truth-content of such statements is always in doubt - it only leads him to recognise an epistemological uncertainty. It does not lead him to claim that the predicate 'truth' cannot rightfully be applied to these statements, nor that there is a gap in ontological status between the factual evidence and the factual statements for which it is evidence.

If Popper wants to say that a gap between factual evidence and the statements for which it is evidence, implies that the statements are merely uncertain, he must apply the same reasoning when referring to moral statements: both scientific statements (be they 'basic' statements or more 'universal' statements) and moral statements are based on factual evidence which can be questioned for its sufficiency. Either we conclude from this that <u>all</u> statements (<u>scientific and moral</u>) are uncertain but still may be true, or that truth predicates are inapplicable to both types of statements.

The former conclusion would be the conclusion of so-called definists, who seek valid or correct definitions of both scientific and moral terms and who espouse a correspondence theory of scientific and moral truth; the latter conclusion would be the conclusion of the conventionalists, who reject the correspondence theory of truth in both the scientific and moral realms, as well as the attendant conception of 'correct' scientific or moral definitions. Both the former and latter conclusions, however, involve alternatives to the proposed Popperian dualism between values and facts - alternatives which Popper's 'open question argument' does not successfully vanquish.

Having revealed the invalidity of Popper's 'open question argument' for the dualism of facts and standards, it becomes possible to question all of Popper's claims concerning the "decisive asymmetry between standards and facts" (Popper, 1973: 384). Thus, for example, it becomes possible to question Popper's claim that only scientific statements (or other factual propositions) can correspond to objective reality, there being no moral reality with the same objective status to which moral statements can correspond: Popper claims that moral judgments are different from scientific statements because when we say of a standard that it is right or wrong (or good or bad, or valid or invalid) we are not making a statement which either corresponds or does not correspond with objective facts. All that we are doing is suggesting that the corresponding proposal should or should not be accepted. Popper argues that it is only in a metaphorical sense that normative laws can be called 'true' or 'false', and not in the literal sense that they correspond or do not correspond to factual reality. This is because a normative law "does not describe a fact but lays down directions for our behaviour" (Popper, 1974: 58). Moral judgments cannot be true or false in the literal sense because "standards are not to be found in nature. Nature consists of facts and of regularities,

and is in itself neither moral nor immoral" (Popper, 1974: 61).

But this argument of Popper's for the "decisive asymmetry between standards and facts" (1973: 384) is viciously circular. Of course, if we know in advance that nature consists of facts and of regularities and is neither moral nor immoral, then statements about facts and regularities will be different from moral statements concerning standards. If Popper's initial assumption is correct, then the truth-predicate can be literally applied to scientific statements (or other factual propositions which refer to objective reality), while it can be applied only metaphorically to normative statements because such statements do not refer to the objective world.

But we need not accept Popper's initial assumption (since it is an arbitrary assumption which takes the form of a dogmatic claim). We can equally well (arbitrarily) claim that facts and values are identical in ontological status, so that the predicates 'true' or 'false', 'right' or 'wrong', can be interchanged with each other: The predicates could be held to be interchangeable either because:

1. both moral judgments and scientific statements can in principle mirror objective reality. The predicate 'true' could then be interchanged with the predicate 'right' in the sense that both types of predicates refer to something that is (objectively) the case;

   or

2. both moral judgments and scientific statements never mirror objective reality. Here the predicate 'true' could be interchanged with the predicate 'right' because both types of predicates refer to a world constituted by human subjects.

In the former case, we could extend the Popperian mode of reasoning and follow the hypothetico-deductivist stance to

its logical conclusion: Both scientific statements and moral judgments are supported insufficiently by factual information and this lends a fundamental uncertainty to both scientific and moral knowledge. This former possibility, however, embodies the inadequacies which were revealed when discussing the Popperian account of the scientific enterprise: An objectivist position - whether in the scientific or moral sphere - is not adequately able to justify or account for its objectivism.

The latter case represents the Kovesi-Toulmin type conventionalist mode of approach in the scientific and moral realms. The claim here is that in both the moral and scientific spheres we are active participants in the creation of the world, so that neither facts nor values exist independently of the activities and purposes of human subjects. This latter position presents a viable alternative to both the scientific and moral objectivism of the former case, and to Popperian-type dualism.

A CONVENTIONALIST ACCOUNT OF THE FACT/VALUE RELATIONSHIP

Having shown that Popperian dualism rests on an arbitrary and dogmatic claim which can in principle be questioned (for example by the two cases described above), I will now indicate in detail how conventionalism offers a consistent and adequate alternative to Popper's conception of facts and values.

Kovesi

Kovesi argues that there is no difference in ontological status between facts and values. He argues that both factual concepts and value concepts are irreducible to, and undefinable in terms of, 'recognitors'. Both factual and

value concepts exist as formal elements which are rules stating the recognitors which must be present if something is to be classed under the conceptual category. Both the factual concept 'table' and the value concept 'good', are linked to factual empirical recognitors in the same way. Both types of concepts are formal elements stating the necessary empirical features for the proper use of classificatory labels. Thus the 'gap' between factual (descriptive) concepts and empirical recognitors, is no different in kind from the gap between evaluative (moral) concepts and empirical recognitors. If we want to talk of a logical gap between the empirical features of situations or objects which (the community has decided) enable us to call them 'good' and the placing of these features under the category 'good', then we must also talk of a logical gap between the empirical properties of, say, a table and the grouping of these features under the category 'table'. The gap is the same in both cases and points to the fact that both moral and factual (everyday or scientific) concepts are devices used by human subjects to work a manageable structure into material recognitors. The gap between empirical features and conceptual categories, implies that concepts are heuristic devices which lack objective ontological status; the world to which concepts - whether 'factual' or 'moral' - refer, is a world constituted by human subjects engaging in purposeful enterprises.

As moral concepts are no different in logical kind from everyday or scientific descriptive concepts, so moral judgments are no different in logical kind from so-called factual judgments:

> Whether we make a judgment by using a descriptive or moral term, i.e. whether we make a judgment like 'this is a table' or 'this is murder', the justification for our judgment lies in the presence of absence of certain relevant facts (recognitors) (Kovesi, 1967: 63).

Just as the community is able to decide in the presence of which recognitors the judgment "This is a table" can be made, so the community is able to decide in the presence of which recognitors the judgment "This is murder" can be made.

Thus Kovesi would reject Goode and Hatt's opinion (1952: 68) that the statement "Capitalists exploit their workers" contains a term which, being a value term, has no 'ultimate empirical referent'. Kovesi would argue that even though the term 'exploitation' is a value term, the defining features for the proper use of the term can be established in the same way that the defining features of scientific terms can be. The difference between moral and scientific terms is not that the former's meaning is incapable of being defined in terms of objective criteria while the latter's meaning is so capable. The difference between moral and scientific concepts is rather that they serve different functions in the community and are created with different purposes. Concepts formed from the moral point of view are formed for the purpose of blaming or condoning certain acts, so that members of the moral community can engage in a communal life where individuals adjust their demands and rights in terms of those of others. Concepts formed from the scientific point of view, on the other hand, are formed within the scientific community for the purpose of being able to base our expectations on past experiences.

Kovesi would also attack Popper's contention (1973: 233) that the making of moral judgments is different from the making of scientific judgments in that we have to confront the consequences of moral, but not of scientific, judgments with our conscience. Kovesi would argue that just as the consequences of scientific experiments are motivating factors which lead the community of scientists to accept or reject a scientific judgment, so the kind of arguments (relevant facts) which are presented in favour of making

a moral judgment, are motivating factors which lead the moral community to accept or reject the moral judgment. Just as the scientific judgment is not ultimately a matter of individual conscience but a matter of whether the judgment furthers the aim of the scientific community, so the moral judgment is not ultimately a matter of conscience but a matter of whether the moral judgment serves the purpose for which moral concepts are developed by the (moral) community.

Toulmin

Like Kovesi, Toulmin argues that the 'leap' from the statements of fact which constitute reasons for ethical judgments, to ethical judgments, is no different in kind from the 'leap' from 'is' to 'is' statements. Thus, for example, the 'leap' from "This is the shortest distance between two points" to "This is a straight line" is no different in kind from the 'leap' from "This action involves the unnecessary suffering and inconvenience of people" to "This action is wrong": Just as the scientific community can decide (in terms of the purposes of the scientific enterprise) that its members are 'logically compelled' to move from "This is the shortest distance between two points" to "This is a straight line", so the moral community can decide (in terms of the purposes of the ethical enterprise) that its members are logically compelled to move from "This action involves the unnecessary suffering and inconvenience of people" to "This action is wrong". The standards which are invoked to determine whether factual features of objects or situations qualify them to be called 'good' or 'bad', are admittedly subjective; but so is the element which is invoked to determine whether the empirical features possessed by something qualifies it to be called 'straight'.

Like Kovesi, Toulmin argues that the difference between ethics and science is not that the ontological status of their object domains differ, but that the purposes of the respective enterprises differ. Because the purposes of these enterprises differ, the mode of reasoning and the types of argument employed in ethics, are different from

those employed in science - the 'logic of ethics' is different from the 'logic of science'. While scientific logic and language is geared towards the activity of basing expectations on past experience, ethical logic and language is

> part of a process whereby, as members of a community, we moderate our impulses and adjust our demands so as to reconcile them as far as possible with those of our fellows
> (Toulmin, 1968: 132).

Toulmin argues (1968: 102) that, given the purpose of the ethical enterprise, "rules for selecting 'true' moral judgments from 'false', and 'valid' arguments from 'fallacious'", can be discovered, in the same way that such rules can be discovered in the scientific domain. In this way Toulmin would attack Popper's claim that "the regulative idea of absolute 'rightness' or 'goodness' differs in its logical status from that of absolute truth" (Popper, 1973: 385).

Comparison Between Hypothetico-Deductivism and Conventionalism in Sociology

In order to clarify the difference between the hypothetico-deductivist and conventionalist accounts of facts and values, I will outline the implications of this differentiation for sociology:

1. Conventionalists would reject the hypothetico-deductivist contention that a value-free social science - in the sense of value-free discovery of objective social reality - is possible. They would argue that the values of the sociological community (which may be the scientific value of basing expectations on past social experiences) play an important role in creating the

'reality' that becomes 'disclosed'. Social reality, like natural reality, is not the a posteriori objective world given to the natural or social scientist, but is the in-part subjective reality that sociologists' language creates.

2. Conventionalists would agree with hypothetico-deductive sociologists that there is no objective moral reality of which objective knowledge can be gained. They would reject the objectivist view that "moral qualities are actually a kind of fact" (Lessnoff, 1974: 136). Furthermore, they would agree that ethical 'knowledge' or 'discovery' does not belong in the realm of scientific sociology and can be disentangled from this realm. They would agree that the dimension of ethics is not inextricably linked with the dimension of social science. The conventionalists would, like the hypothetico-deductivists, attack Leo Strauss' criticism of Weber's ethical theory:

> To Leo Strauss, one of Weber's most trenchant critics, this ethical theory is the fundamental error lying behind his call for value-free social science. For Strauss moral truth is an objective fact ... (Thus) far from its being unscientific to describe behaviour in these (moral) terms, to avoid them is unscientific - it is failing to 'understand social phenomena as what they are'" (Lessnoff, 1974: 137).

3. Although both the conventionalists and hypothetico-deductivists would reject Strauss' moral objectivism, the conventionalists would differ from the hypothetico-deductivists on two points. Firstly, they would go further than the hypothetico-deductivists in that they would reject the notion of objectivism <u>per se</u>, and not just <u>moral</u> objectivism. Secondly, they would argue that (scientific) sociology can be disentangled from ethics <u>not because</u> the <u>one discovers objective reality while the other does not</u>, but because

the two disciplines have their origin in different purposes.

4. Conventionalists would say that the domain of facts (to which social science is addressed) is distinct from the domain of values (to which ethics is addressed) because facts and values owe their origin to different human purposes. But this does not imply that social facts differ in logical or ontological status from values: Social facts and values are logically separate only in the sense that the 'logic of social science' differs from the 'logic of ethics'. Conventionalists would thus disagree with hypothetico-deductivist sociologists who propose a Popperian- or Weberian-type fact/value dualism, in which the distinctness of facts and values is tied to a conception of their differing status.

The importance of the conventionalist differentiation from hypothetico-deductivism will become clear when I deal with Habermas and Marcuse's rejection of the positive dualism of facts and standards. Thus far, I have merely attempted to outline this differentiation, which will be given more attention and elaboration in Chapters 3 and 4.

CONCLUSION

The primary aim of the foregoing chapter was to offer a critique of the hypothetico-deductive account of the natural and social sciences and to show how conventionalism presents a viable alternative to this account. It was demonstrated in this chapter that all the arguments justifying the use of the hypothetico-deductive methodological procedure in the search for (natural or social) scientific knowledge, rest on questionable epistemological and ontological assumptions.

The consequences of replacing these assumptions by an alternative set of assumptions - namely, those underpinning conventionalism - were examined.

The reason for examining the lacuna in hypothetico-deductivism and for presenting conventionalism as a viable alternative was to lay the groundwork for examining Habermas' and Marcuse's attacks on positivism. By showing to what extent I believe hypothetico-deductivism can be revealed as inadequate, I have laid the foundation for justifying my critical examination of Habermas' and Marcuse's discussions of its inadequacies. Furthermore, having shown why I regard conventionalism as a viable alternative to positivism, my critique of Habermas' and Marcuse's rejections of positivism becomes more intelligible. This is because many of my criticisms of Habermas' and Marcuse's arguments against positivism are formulated in the light of the conventionalist epistemology and ontology; they take the form of demonstrating how conventionalism poses as a viable alternative to both positivism and to the positions of Habermas and Marcuse, examining the pitfalls of Habermas' and Marcuse's critiques of positivism in the light of this alternative.

A CRITICAL EXAMINATION OF JÜRGEN HABERMAS' ATTACK ON POSITIVISM

INTRODUCTION

In Chapter 2 it was demonstrated how the hypothetico-deductive account of (natural and social) science is based on questionable epistemological and ontological assumptions. It was also demonstrated that the conventionalist account of the scientific method and of the nature of the relationship between facts and values, poses as a viable alternative to hypothetico-deductivism. No attempt was made to 'prove' that conventionalism is correct or that it is superior to hypothetico-deductivism.

The aim of Chapter 3 is to demonstrate how conventionalism poses as a viable alternative to Habermas' position and to argue that Habermas' rejection of positivism has not adequately accounted for the conventionalist alternative. In keeping with my explicit and Habermas' implicit definition of 'positivism' as embracing both inductivism and hypothetico-deductivism, Habermas' critique of the features common to both inductivism and hypothetico-deductivism - such as objectivism and the fact/value dualism - will be discussed. But, bearing in mind my claim that inductivism has largely been replaced by hypothetico-deductivism in sociology, it becomes clear that Habermas' critique of 'positivism' in sociology, generally applies to the hypothetico-deductivism pervading sociology, and gains cogency in the light of this pervasion.

The structure of this chapter takes the same form as Chapter 2, and is likewise divided on the basis of the three types of problem areas identified in Chapter 2, viz. the 'empirical

basis problem', the problem of the existence of theoretical entities and laws, and the problems connected with the fact/value distinction.

An important theme in this chapter is that the hope to vanquish ones opponents' epistemological and ontological stances and to conclusively prove the validity of ones own stance, represents a fundamental naïvity. By showing how all of Habermas' arguments against positivism are (like the arguments of positivism itself) based on questionable and unprovable assumptions, I locate the crucial problem that 'proof' of absolute claims about the nature of reality and of knowledge, is unattainable. Repeatedly drawing attention to this problem in various contexts, I make the suggestion that conventionalism be regarded as superior, both to positivism and to Habermas' position, by virtue of the fact that it allows for a partial solution to the problem. I suggest that conventionalism is ultimately the best epistemological and ontological stance to adopt, not because it is correct - a fact which cannot be proven - but because it exhorts men to refrain from seeking to establish the certainty of their absolute claims. It exhorts men not to claim to possess 'the truth' about reality or about the means of gaining knowledge of reality - a trap into which both positivists and Habermas fall.

Conventionalism claims that the purposes of a rational enterprise provide a framework to distinguish 'true' from 'false' statements, and it is within this framework that a creative negotiation of a human reality in which men can live, is formulated. The aim of a rational discipline should not be conceived as arriving at (absolute) truth, for then the negotiation of a 'human' reality is stifled as the quest for 'objective truth' subverts the discussion.

The differentiation between Habermas' and the conventionalist conceptions of 'rationality' and of the relationship between scientific and ethical rationality, is given prime

attention in this chapter. It is noted that Habermas' conception of human rationality draws on, but transcends the Kantian conception. Like Kant, Habermas sees the rational enterprise of science as embodying a transcendental framework which objectifies reality from the point of view of a specific a priori interest. But in contrast to Kant, Habermas envisages other a priori interests of the human species besides the scientific one. Furthermore, Habermas believes that the a priori interest in 'emancipation' allows social reality not merely to appear in the light of this interest, but also to be captured as it really is. With the use of this a priori framework - unlike with the use of the scientific one - the interest of reason does not distort or modify reality in its mode of appearing. The 'ding an sich' of social life is captured in its 'givenness', as are the values established through the 'discursive will formation' of the social subjects.

Conventionalists differ from Habermas in their account of rational enterprises in the following ways:

1. They do not regard the 'a priori interest' of a rational enterprise as resulting in only one 'mode of appearing' of the reality to which the enterprise is addressed. They envisage the possibility of many 'modes of appearing' under the general framework provided by the so-called a priori interest.

2. Unlike Habermas, conventionalists do not distinguish scientific rationality from critical (ethical) rationality on the ground that the one grasps merely the appearance of reality, and the other, reality itself. Conventionalists would agree with Habermas (and Kant) that science objectifies reality from the point of view of specific purposes; but they would disagree that the purposes of a critical sociology would allow social reality itself to be captured. Rather they would claim

that this critical enterprise objectifies reality from the point of view of moral purposes, and does not mirror the 'ding an sich' of social life.

3. Conventionalists would not suggest a monism of facts and values of the kind that Habermas suggests, in which the descriptive and prescriptive moments of language become forged through a critical sociological enterprise. Conventionalists claim that the discipline of social science is - as the discipline of natural science - a separate discipline from ethics, so that facts and values are indeed distinct. (Conventionalist 'dualism' is different from Popperian dualism in that facts and values are not seen as having differing logical or ontological status - facts and values are distinct only in the sense that science and ethics owe their origin to different human purposes.)

THE EMPIRICAL BASIS PROBLEM

HABERMAS' CRITIQUE OF THE COMTIAN OBJECTIVIST ONTOLOGY

In criticising the Comtian attribution of ontological status to 'the facts', Habermas notes that Comte restricts the object domain of science to 'the facts', which are defined as "the actual in contrast to the merely imaginary, what can claim certainty in contrast to the undecided, the exact in contrast to the indefinite..." (Comte, quoted in Habermas, 1972: 74).

Habermas notes that Comte assumes that because science restricts its object domain to 'the facts', it must be discovering the truth about reality, reality being defined

as the object domain of science (the actual in contrast to the imaginary). Habermas argues that this reasoning of Comte is viciously circular and that the ontological status of the facts to which science has access, remains problematic: Comte cannot legitimately declare 'the facts' as reality, and then use this declaration as the justification for saying that science discovers reality as it really is because it replicates the facts and their relations. Habermas notes that Comte has not been able to substantiate his objectivist position adequately. Habermas does not distinguish (as I do) between an epistemological and ontological objectivism, but conflates the two when attacking positivist objectivism: He defines objectivism as the "assumption that scientific information apprehends reality descriptively" (1972: 89); that is, he defines the "objectivism of the sciences as the stance in which the world appears objectively as a universe of facts whose lawlike connection can be grasped descriptively" (Habermas 1972: 304).

Habermas argues that the "objectivist illusion deludes the sciences with the image of a reality-in-itself consisting of facts structured in a lawlike manner" (1972: 305). Habermas argues that actually the 'model sciences' do <u>not</u> discover reality-in-itself, but reality as it appears to us from the viewpoint of a particular transcendental framework. It is the transcendental framework connected with the interest in prediction and control, which imbues scientific statements with meaning. The object domain of the sciences, is reality as it has been disclosed from the viewpoint of the 'technical interest'; it is a world which has been "objectified from the point of view of possible technical control" (1972: 133). The objectivist illusion of the sciences conceals this a priori transcendental framework which is responsible for the disclosure of the object domain of science; it conceals the fact that the scientific object domain is constituted by human subjects

"through an a priori organisation of our (their) experience" (1972: 309).

Weaknesses in Habermas' Critique of Comtian Objectivism

Habermas' attack on Comtian objectivism does not follow compellingly from his arguments against the vicious circularity in Comte's position. Although it is true that, for example, Comte was unable to justify his objectivist stance without falling into vicious circularity, it does not follow that his objectivism is illusory and that reality only becomes constituted and disclosed subject to 'knowledge constitutive interests'. Habermas' leap from the fact that particular positivists are unable to substantiate their ontological claims without having prior knowledge of their object domain, to the fact that their objectivism is illusory, is an illegitimate one. Nor can Habermas claim that objectivism is illusory by simply revealing the knowledge constitutive interest that establishes the meaning of the validity of empirical statements. For then Habermas' argument against objectivism becomes viciously circular: If it is true that the 'knowledge constitutive interest' is responsible for the disclosure of the scientific object domain, then objectivism is illusory. But one cannot argue that objectivism is illusory by simply pointing to this interest, and by claiming that this interest establishes the precondition of the meaning of the validity of scientific propositions. For it is precisely the role of the 'technical interest' which is in question. A defender of objectivism could claim that even if the sciences are guided by an interest in prediction and control, this does not imply that this interest is responsible for constituting the object domain of science. One can equally well assume that the search for theories which are predictively reliable, allows reality-in-itself to be discovered and grasped 'as it really is'; the interest

in prediction need not mitigate against the possibility of attaining objective truth. Likewise one could argue that it is not the interest which is responsible for the meaning of the validity of scientific statements; one could argue that the meaning of their validity is dependent on their reference to a factual object domain which exists prior to the scientific enterprise. The question of the ground for the meaning of the validity of scientific statements cannot be settled by pointing to an interest which is assumed to be responsible for this meaning, for it is precisely the question of whether it is so responsible which is at stake.

Faced with the pitfalls in Habermas' critique of Comtian objectivism, it becomes clear that his critique does not establish the illusory nature of objectivism. It becomes clear that Habermas' critique of the ungrounded assumptions of objectivism is in turn based on ungrounded assumptions, viz. the assumption that a knowledge constitutive interest establishes the object domain of science, and the assumption that the meaning of scientific statements is dependent on this interest. Thus we are left with the problem of not being able to conclusively establish any particular account of the nature of 'the world' as the true one. Although, as I demonstrated in Chapter 2, one can set up a viable alternative to what Habermas calls "the objectivism of the sciences", it does not seem feasible to establish this alternative as 'the truth'. The viable alternative of conventionalism, which I set up in Chapter 2, is similar to Habermas' position insofar as both embrace a measure of nonobjectivism. At this point in the thesis, the problem of presenting any viable alternative to objectivism - whether conventionalism or Habermas' position- as 'the truth' has been isolated. (Later in this chapter, I will show how conventionalism poses is a superior alternative to Habermas' position, and why I ultimately accept a conventionalist stance.)

HABERMAS' CRITIQUE OF THE POPPERIAN OBJECTIVIST ONTOLOGY

In criticising the Popperian attribution of independent ontological status to 'the facts', Habermas notes that Popper, like Comte, assumes that 'facts' exist in themselves and that "theories should descriptively grasp these facts and the relations between them" (Habermas, 1978: 200). Habermas criticises Popper for not conceptualising "the facts as that which they are: namely, produced" (1978: 201). In attacking the Popperian ontological position, Habermas charges Popper with inconsistency. Habermas argues that Popper's attack on inductivism in which Popper argues that "we can only apprehend and determine facts in the light of theories" (Habermas, 1978: 200), is incompatible with an objectivist position which grants independent ontological status to the facts. Habermas argues that Popper's attack on inductivist empiricism leads him, for the sake of consistency, into the direction of admitting that it is only within a transcendental framework that the "meaning of the validity of factual statements ... is determined" (1978: 201). As Habermas puts it: "Popper does not complete the retreat into the transcendental dimension but the consistency of his own critique leads in this direction" (1978: 201).

A Critique of Habermas' Argument

In dealing with Habermas' charge of Popperian inconsistency, I argue that Popper's failure to "retreat into the transcendental dimension" is not inconsistent with his attack on inductivism. Furthermore, Habermas' belief that a "retreat into the transcendental dimension" is an inevitable, logically compelling step once inductivism has been refuted, betrays an illegitimate assumption of Habermas, viz. the assumption that because facts cannot be grasped immediately,

they must be constituted in conjunction with the standards set by the scientific community.

But the step from criticising inductivism, to claiming that "such things as experimentally established facts ... are only constituted in a preliminary context of the interpretation of possible experience", (1978: 205) is not as logically compelling as Habermas assumes. One can argue (as in fact Popper does, and not inconsistently) that although the facts cannot be grasped immediately, this does not necessarily imply that the facts lack independent ontological status. All that it necessarily implies is that epistemological certainty as to whether a particular basic statement has adequately described a factual occurrence, can never be guaranteed.

Although I agree with Habermas that Popper has not considered the possible ontological implications of the 'empirical basic problem', I disagree with Habermas that the failure to consider these implications reflects an inconsistency in Popper's approach. All that one can legitimately argue against Popper is that he is unable to cope with the alternative (conventionalist) ontological stance which regards scientific facts as humanly produced. One can argue against Popper (as Chapter 2 demonstrated) that he is unable to substantiate his objectivist ontological stance. But one cannot argue that his failure to substantiate his objectivism reflects an inconsistency.

Habermas' attempt to 'prove' that the Popperian conception of the nature of reality is mistaken, remains unconvincing. His 'proof' rests on a misunderstanding of the fact that Popper can treat the problems revolving around lack of a neutral language of observation as epistemological problems of uncertainty: Popper is thus <u>not</u> logically compelled to reconsider his ontological stance in the light of the problem that facts cannot be grasped immediately; his failure to reconsider his ontological stance is <u>not</u> inconsistent with the hypothetico-deductivist critique of inductivism.

Habermas' hope to vanquish Popper's ontological stance by claiming that it involves Popper in inconsistencies, betrays an oversimplification of the problem of how to establish the truth or falsity of a particular ontology. Habermas' hope to prove the truth of his ontology and reveal the falsity of the Popperian one, betrays an ignorance of the problems involved in disproving a stubborn opponent's ontological stance. Habermas' simplification of these problematic issues, leads him into vicious circularity.

The circularity of Habermas' argument against Popperian objectivism, becomes apparent in Habermas' criticism of the Popperian comparison of the research process with a juridicial process: Habermas notes that Popper compares the researchers' decision to accept a basic statement about a factual occurrence, with the decision of the jury to accept a statement about a factual occurrence. Habermas accepts the comparison to which Popper has drawn attention, but argues that if the implications of the comparison are taken to their logical conclusion, then we are led into admitting that it is an "implicit preunderstanding of the rules of the game" (1978: 203) which is responsible for the constitution of scientific or juridicial facts. However, Habermas' conception of the Popperian comparison, and of the logical implications of this comparison, is influenced by his prior conception of the lack of independent ontological status of the facts. For even if the research and juridicial process are dependent for their success on the agreement of the relevant persons, this does not necessarily imply that their agreement is responsible for the <u>constitution</u> of the respective facts - it need only imply that their agreement is responsible for the (correct or incorrect) apprehension of <u>pre-existing facts</u>. It is the latter interpretation of the comparison which Popper advances; Popper claims that the agreement of the relevant scientists or jurists to accept or reject a basic statement, may be right or wrong precisely because the agreement does not constitute the factual occurrences, but is intended to mirror the pre-existing occurrences. The most that one can legitimately argue against the Popperian account of the

comparison of the scientific and juridicial procedure, is that he fails to consider the alternative nonobjectivist ontological account and takes it for granted that basic statements are about independently existing factual occurrences. But one cannot argue - as Habermas attempts to do - that Popper has falsely failed to reject the "positivistic presupposition of a correspondence between statements and the actual state of affairs" (1978: 205), for the falsity of this presupposition has still not been established conclusively.

THE NATURE OF THEORETICAL CONCEPTS AND LAWS

HABERMAS' CRITIQUE OF THE POSITIVIST ACCOUNT OF NATURAL AND SOCIAL LAWS

Habermas notes that "empirical scientific theories possess the significance of permitting the derivation of universal propositions concerning the covariance of empirical quantities" (1978: 203).

He notes that scientific hypotheses "determine the horison of expectation of feedback-monitored activity and consequently can be falsified by disappointed expectations of success" (1978: 206). Habermas agrees that 'knowledge' of such empirical regularities has utility, but argues that "the descriptive content is only valid with reference to prognoses for feedback-monitored actions in predictable situations" (1978: 206). He argues that the restriction of the validity of scientific lawful hypotheses to this particular range of possible experience "contradicts the illusion of pure theory" (1978: 207).

Habermas claims that the scientific enterprise is not, as positivists assume, arriving at value-free knowledge of a

pre-existing world of lawful connections - the fact that scientific theories are restricted to the particular range of experience dictated by the technical interest, reveals that is is guided by pregiven standards and is not simply discovering reality in a value-free manner. Instead it is 'discovering' reality subject to the standards connected with the 'technical interest', such standards being responsible for the constitution of the lawlike object domain of science.

Habermas' arguments against the positivist understanding of the achievements of the scientific enterprise in general, are extended to embrace the positivist understanding of the achievements of the social scientific enterprise. It is in fact the positivist understanding of the nature of the laws that it 'discovers' in the social world, that Habermas is most bent on criticising. For he sees the positivist understanding of society as issuing in the consequence of a continually refined administrative control of human beings who have become alienated from their social world. Thus Habermas argues that the indifference of natural science towards its (objectified) object domain has no important consequences for human beings; while the indifference of social science towards the social world which becomes objectified through the application of positivist methodological procedures, does have important consequences:

> As soon as cognitive interest is directed beyond the domination of nature ... the indifference of the system in the face of its area of application suddenly changes into a distortion of the object. The structure of the object ... condemns to irrelevance the theory which it cannot penetrate (1977: 134).

A social science which adheres to a positivist methodology in its search for invariant social laws, necessarily "obstructs its view of the object" (1974: 208) and fails to capture the essence of the social world as human subjectivity. In objectifying its object domain in its search for

invariant social laws, it cannot grasp the real structure of the social world - the real structure of the social world remains undetected by such a social science. This failure to capture the essence of the structure of society as human intentionality, implies that social scientific theories become utilisable only to the extent that human subjects remain alienated from their social world, so that the laws of social life do take on a 'quasi-casual' character: To the extent that the intentional structure of the social world is lost to consciousness and individuals regard their social world as alien to them and beyond their control, a social science which 'grasps' the objective social structure, becomes applicable. The danger of utilising such a social science however, is that it contributes to the alienation of human subjects from their social world, serving to perpetuate this alienation by mystifying the "historical character of society" (1974: 207) i.e. by obscuring the fact that the present 'social laws' are specific to the present epoch and are capable of being overcome.

Problems with Habermas' Argument

Firstly, I wish to point out the flaw in Habermas' argument that states that the restriction of the scientific object domain to the particular range of experience which is subject to "feedback-monitored actions in predictable situations" implies a contradiction of the "illusion of pure theory" (1978: 206/207). Against this statement of Habermas one could legitimately argue that the restriction of the scientific object domain to predictable lawful relations between facts, need not imply that these lawful relations are constituted by the scientific community; and thus need not imply a "contradiction of the illusion of pure theory": Although science restricts itself to a discovery of predictable relations between facts, this need not imply that it is not discovering objectively given and independently existing lawful relations. The only way in which Habermas

can conclusively prove that a 'pure theory' which attempts to grasp relations between facts "as they really are", is contradictory, is if he has prior access to the object domain of science - such access would allow him to see whether in fact all attempts to discover objectively existing lawful connections are in vain, there being no such laws to discover. But without such prior access, we cannot know whether the attempt to gain predictively reliable theories about a lawful object domain, does or does not compel us into co-creating such an object domain, and thus whether the quest for pure knowledge is or is not contradictory.

Likewise Habermas' pointing to the existence of preliminary standards which are accepted by the scientific community, does not conclusively prove that the scientific task of discovering objectively existing laws, is value-laden (in the sense of necessarily imbuing the objective world with subjective values in the process of knowledge discovery). All that these prior standards or values may indicate is that (as Popper admits) scientists must believe in the value of scientific knowledge. In other words the values and standards to which Habermas has drawn attention, need not infiltrate the purity of the knowedge gained through the scientific procedure - such values and standards may merely be the extrinsic impelling force which propels scientists into the discovery of the lawful connections in the object domain. What one can, however, legitimately argue against the Popperian claim concerning the value-freedom of the scientific enterprise, is that it is unable to account for the possibility that the preliminary standards and values are an intrinsic disturbance in the search for objective truth. Thus although Habermas' contention that such preliminary standards and values <u>definitely</u> hamper the value-freedom of science, is ungrounded, Habermas has drawn attention to a possibility with which Popper is unable to cope. (It is this possibility which the conventionalists explore in their attempt to offer an alternative account of the scientific enterprise to that offered by the positivists,

i.e. the possibility that the scientific object domain is inextricably woven with the human purposes out of which science arises).

Having pointed out the problems with Habermas' argument against the positivist understanding of laws in general, I wish now to concentrate on his attack against the positivist application of the natural scientific methodology in sociology: Habermas laments the transference to sociology of the methodological procedures used in the natural sciences. He attacks this transference for distorting the object domain of sociology in such a way that "our spontaneous achievements have to be restricted to our 'recognising' them disinterestedly ..." (1977: 157). Habermas attempts to justify his claim that natural scientific methodological procedures lead to a distortion of the social object, by arguing that it is ideological to analyse "societal relations of historically acting people ... as the lawlike relations between things" (1977: 139). Habermas claims that the relations of historically acting people are not objectively given invariant relations, because they depend for their existence on the intentions of the human subjects who 'act out' these relations: The intentions of human subjects are connected with the specific social norms in operation in a particular epoch. "Consequently hypotheses relating to social action are, of necessity, valid within the same limitations as the relevant norms ... " (Pilot, 1977: 264).

But the arguments of Habermas concerning the inappropriateness of regarding structures of human action as subject to invariant laws which social science can discover, are not compelling. For although social action is structured by human intentionality, this does not necessarily imply that such intentionality is specific to a particular epoch and that hypotheses concerning them are of limited validity. The social relations of the historically acting subjects may still be lawful if the structures of human intentionality are 'anthropologically enduring structures', i.e. if the structures of human motivation are not specific to particular

historical epochs. Habermas' critique is based on the assumption that there are no 'anthropologically enduring structures' or historical constants (1977: 138).[1] But Habermas is not able to prove this assumption. Thus he cannot dogmatically assert that the search for invariant social laws leads to a distortion of social reality: Habermas cannot legitimately argue that all societal relations are the result of 'spontaneous achievements', so that is is false to regard them otherwise. For if there are certain invariant structures of human intentionality, then all of our social actions cannot be regarded as 'spontaneous achievements'; and recognising them 'disinterestedly' will in fact be the correct way of regarding them.

Despite the above objections which I have made to Habermas' critique of positivistic social laws, I suggest that there is an ideological element in positivism which Habermas legitimately laments. This ideological element lies in positivists' taken-for-granted acceptance of the view that social relations are comparable with lawlike relations, without their being able to conclusively justify or 'prove' the validity of this position: I suggest that this assumption of positivist objectivism is dangerous to the extent that it leads to an unnecessary reification of social relations which are not lawful (and which thus should not have been regarded objectively): If the positivists are wrong in their assumption of objectivism, then the submission to what are taken to be universally valid laws, is in fact unnecessary.

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1. Habermas' claim that the present laws of the social structure are not irrevocable, and his attendant assumption that there are no 'anthropological constants' which define 'human nature', directly echoes the Marxian position: For Marx, man as manifested in the capitalist mode of production, is as ephemeral and revocable as the mode of production itself. The conception of man and of the relations of production under capitalism as universal 'givens', represented, for Marx, a misconstruing of human nature and of the society to which human beings owe their nature.

Thus although I claim that Habermas has not been able to prove the validity of his anthropological assumption and thus of his conception of the social world, I suggest that it is dangerous to reject his anthropology: The danger of accepting the positivist idea of anthropological constants and of irrevocable social laws, is that it leads to an attitude of submission to what are - perhaps incorrectly - considered as eternal 'givens'.

HABERMAS' CRITIQUE OF THE CONCEPTUAL LANGUAGE OF ANALYTICAL-EMPIRICAL SCIENCE

Habermas' critique of the "analytical-empirical ... attempt to test lawlike hypotheses ... " in the social world (1979: 137) is also linked to a critique of the concepts which are used when undertaking such analyses. Habermas argues that the conceptual language used when undertaking analytical-empirical analyses, foregoes "all thought which cannot be ... translated into the formal language of a hypothetico-deductive connection" (1977: 136). He argues that the conceptual language of science excludes various domains of social reality from analysis, although these domains are no less real than the empirical findings which science discloses. For example, he claims that such a conceptual language is unable to demonstrate the "dependence of each social phenomenon on the totality" (1977: 136), for this dependence is not reducible to experimental observation. Habermas also claims that the conceptual language of analytical-empirical science is unable to grasp society in the "tendencies of its historical development ... (towards) that which it is not" (1977: 140); it is unable to grasp the "tension between the possible and the real" and to "keep itself open to the future" (1977: 140). In its search for "stationary connections with recurring and repeatable sequences" (1977: 141) social science is necessarily limited to grasping this static range of experience.

In launching an attack on the nature of the concepts used when undertaking "limited predictions of objective or objectified processes ... (and) comparing the events predicted with those actually observed" (1977: 137), Habermas is launching an attack not only on the positivist understanding of the nature and value of these concepts, but on their utility per se. Habermas is now arguing not only that the positivists are misconstruing the nature and value of their conceptual tools in believing that these tools offer them a true vision of social reality, but also that these concepts should not be used in sociology because they render the 'practical interest' impotent. But here two aspects of Habermas' argument against the transference of analytical-empirical concepts to sociology, become entangled: On the one hand Habermas is arguing that the positivist understanding of analytical-empirical concepts as mirroring social reality, is false. On the other hand Habermas is arguing that the analytical-empirical procedure which tests theories by "comparing the results expected with those actually observed" (1977: 137) has disutility in society because it leads to an administered social world in which the 'practical reason' of man has become eclipsed.

A Critique of Habermas' Argument

With regard to the part of Habermas' argument which states that the analytical-empirical conceptual language cannot grasp the "dependence of each social phenomenon in the totality", I argue that in fact the analytic-empirical methodological procedure is equipped to deal with this dimension of social reality. Habermas justifies his claim that it is not so equipped, by arguing that this dimension of social reality cannot be translated into experiments in which observed events are compared with predicted events. But I counterclaim that experiments are able to reveal the underlying social structures of the 'totality' which are responsible for the particular experimental results. I

would agree with Habermas that the underlying structures are usually not pointed to or regarded as relevant by sociologists who undertake experiments using an analytical-empirical mode of procedure. But this does not imply that these structures are incapable of being pointed to by researchers using such a procedure. I argue that the reason for the researchers' not regarding the 'totality' as a factor to be taken into account, springs not from the intrinsic incapacity of their procedure to accommodate such a factor, but rather from the fact that the clients sponsoring such research require a specific utility-value out of the research. When (in Chapter 5) I offer a detailed analysis of particular research projects which have been undertaken using the analytic-empirical methodological procedure, I will substantiate my claim by indicating how the research projects which fail to grasp the 'totality', could be modified by including variables connected with the underlying structures of the social organisation.

With regard to the part of Habermas' argument concerning the falsity of the positivist view of the relation between analytical-empirical concepts and social reality, I argue that the positivist understanding may, but also may not, be illusory. Habermas justifies his claim that analytical-empirical concepts are illusory, by arguing that they are grasping social reality as static and objective whereas in fact it is dynamic and subjective. (It is dynamic because there is a "tension between the possible and the real" - the possibility for change being ever present; it is subjective because there are no objective social laws to which man must necessarily submit). But Habermas' argument against positivists' understanding of their concepts, involves vicious circularity: Habermas cannot prove that the positivist self-understanding is illusory by pointing to the dynamism and subjectivity of social reality, for it is precisely this dynamism and subjectivity which is in question. Only if it is true that social reality is dynamic and subjective, can Habermas legitimately claim that positivists'

understanding of their concepts is illusory. As yet, however, the truth about the nature of social reality remains problematic. The only legitimate reason for rejecting the positivist view of the nature of their concepts, is that it leads to a perhaps unnecessary reification of the social world. One cannot legitimately make the claim, as Habermas attempts to do, that such concepts are false.

In arguing against Habermas' (further but separate) claim that the empirical sciences are necessarily connected with the "transcendental viewpoint of possible technical control" (Habermas, 1971: 99), my argument will take the form of pointing out the context in which empirical science does become connected with a technical administrative function, and drawing attention to the variables which account for this connection. My argument will be that once these relevant variables are eliminated, empirical social science loses its link with "adminstratively soluble technical problems" (1971: 103) which are surmountable within the existing laws of the status quo.

The first part of my argument will consist in drawing attention to the relevant variable of 'self-understanding'. I wish to argue that whether sociologists have a positivist or conventionalist self-understanding, has consequences for sociology's connection with the 'technical interest'. Firstly, I must point out that Habermas has taken it for granted that the use of the scientific procedure for testing lawlike hypotheses in sociology, is necessarily accompanied by the belief that the laws 'discovered' are invariant "recurring and repeatable sequences" with objective ontological status (1977: 141). Habermas takes it for granted that sociologists using a methodology which "tests lawlike hypotheses" (1977: 137), are necessarily committed to regarding the hypothetical laws as mirroring an objective lawlike social world. Habermas has thus not considered the possibility that sociologists following this type of

methodological procedure, need not regard their theoretical laws as mirroring objective social laws; i.e. need not be hypothetico-deductivists in the sense of entertaining a Popperian-type self-understanding. Sociologists might (in principle) accept a conventionalist understanding of their scientific task, in which case they will regard the laws 'discovered' as heuristic devices which help them to work a structure into the flux of their social experience.

Having noted that Habermas has not considered the possibility of the variable of self-understanding in his argument against the use of the analytical-empirical methodological procedure in sociology, I will point out my reasons for believing that such a variable may be relevant, and may make a difference for sociology's connection with the 'technical interest. Firstly, in agreement with Habermas, I recognise that when the use of the analytical-empirical methodological procedure in social science is accompanied by a positivist (objectivist) self-understanding, social science runs into the danger of becoming connected to the 'technical interest'. The Popperian position provides a good example of how the positivist self-understanding leads to the submission to the 'sociological laws' which are currently in operation, and eclipses 'practical reason's' vision of a radically different alternative in which these laws are rendered inapplicable. Popper's stance concerning sociologists' necessary submission to the discovered sociological laws, is well expressed in the following sentences:

> Since laws of nature are unalterable, they can be neither broken nor enforced. They are beyond human control, although they may possibly be used by us for technical purposes, and although we may get into trouble by not knowing them or by ignoring them (1974: 58).

When faced with the criticism that the sociological laws discovered may not be generally valid, but valid only within the present epoch, (in which case submission to them is unnecessary), Popper offers the following response:

He argues that this is not a problem "peculiar to the social sciences" (1957: 100) for in the natural sciences we are also "never quite certain whether our laws are universally valid or whether they hold only in a certain period ... or only in a certain region" (1957: 102). Popper thus argues that social science is no different from natural science, and since natural scientists search for laws with an unlimited realm of validity, so social scientists should "frame sociological theories which are important for all social periods" (1957: 101).

It is clear from Popper's account of the task of the sociologist, that he favours a submission to the "recurring and repeatable sequences" of the existing social order, and that his objectivist belief in the existence of invariant sociological laws has become coupled with a technical interest which does not 'threaten the system'. Because of his positivist self-understanding, Popper has freed members of the society from the responsibility of considering an alternative social order; he has allowed members of the community to regard the presently operating laws as technically utilisable, but incapable of being shattered.

Having recognised that when coupled with a positivist self-understanding, empirical social science runs into the danger of becoming 'co-optable' by administrators, I now wish to argue that when coupled with a conventionalist self-understanding, empirical social science does not run into such a danger. The reason for my arguing that a conventionalist self-understanding of the achievements of empirical social science does not eclipse the vision of an alternative social order in which the 'laws' of the status quo are rendered inapplicable, is that a conventionalist self-understanding is inherently geared towards future possibilities. An examination of Toulmin's account of the way in which conventionalists regard their scientific task, will draw attention to the 'future orientedness' of the conventionalist self-understanding: Toulmin notes that (natural) scientists who are not aware of seeking the goal of discovering 'the truth' concerning the laws of nature,

see their scientific task as that of investigating the implications of fresh empirical evidence for the applicability of present scientific concepts and laws. Toulmin argues that in fact for the (natural) scientific enterprise to succeed, scientists should not be concerned with discovering 'objective' invariant laws, but should be concerned with improving the explanatory fruitfulness of their concepts by way of extending their range of application to new empirical experience. Toulmin argues that successful scientists need not be concerned about the "empirical truth, falsity or degree of probability of theoretical principles" and that such questions do not arise in science (1970: 169). The only questions which arise, are questions about in what empirical situations the explanatory procedures (laws and concepts) of science may have a 'legitimate scientific use'; i.e. questions about in what sorts of situation and on what conditons any particular theory will "serve the explanatory purposes for which it was introduced" (1970: 170). Toulmin suggests (1970: 174) that the "current intellectual ambitions" of the science, determine the object domain of the science, i.e. the objects and events which the science currently hopes to be able to explain. The scope of the current explanatory procedures indicates how far scientists have gone towards realising the intellectual goals of their discipline. Toulmin claims that because there is always a gap between "explanatory ideals and actualities", there is always new problematic area for scientists to explore (1970: 174). Furthermore, as the science proceeds, so "fresh explanatory hopes and possibilities ... become visible" (1970: 174) and the domain of possible problematic phenomena becomes yet wider.

Toulmin's phrasing in his account of the logic of science, reveals the fact that science is, for him, able to uncover the potentialities that 'reality' contains. The concepts of science are not static and fixed, but are geared towards changing in the midst of changing and flexible empirical conditions. Neither concepts and laws, nor the 'reality' to which they refer, are caught in the net of the present and hampered in their development.

Toulmin's examination of the self-understanding of natural empirical scientists, may be applicable to social empirical scientists using a similar analytical-empirical methodology: Just as natural scientists using an analytical-empirical approach may not consider themselves to be seeking invariant objective laws, but may be merely committed towards making "fresh discoveries about the scope or relevance of some 'technique of representation'" (1970: 176), so social scientists using such an approach may in principle have a similar self-understanding. Futhermore, just as the conventionalist self-understanding of natural scientists is coupled with a capacity to transcend "stationary connections with recurring and repeatable sequences" (Habermas, 1977: 141) (by continually modifying the laws which refer to such connections and by recognising that the laws 'refer' only obliquely), so a conventionalist self-understanding of empirical social science may have liberative implications: To the extent that social scientists use an analytical-empirical methodology which is not coupled with a positivist self-understanding, their scientific achievements will not be restricted to 'discovering' stationary connections. Their scientific activities will then be compatible with actively seeking out or creating fresh empirical social conditions in the light of which their laws and concepts must be modified or altered in content. Social scientists will then not necessarily be committed to cautioning social engineers to work within the limits of what is known about the laws of social life; they may be equally committed to experimentation with alternative forms of social life, and to the creation of fresh social experience which will constitute fresh material in the 'domain' of social science. It is by virtue of this latter commitment that conventionalist social scientists would not slip into the danger of perpetuating unnecessary submission to presently given social relations.

It should be noted that I have largely confined my attention to indicating that in the realm of sociology, a positivist understanding of the achievements of empirical social science is not necessary for the science to proceed;

sociologists may equally well, if not better, proceed with the professed aim not of discovering objective truths, but of formulating applicable laws and concepts. The (empirical) question of how many (if any) present sociologists do have a conventionalist self-understanding, has been left unanswered. This however does not detract from my argument against Habermas, which is that sociologists are in principle able to couple empirical social science with a conventionalist self-understanding, and that this variable of self-understanding is a relevant variable (which Habermas has failed to consider). Because Habermas has failed to consider this variable, he takes it for granted that present and future sociologists who follow an empirical-analytical procedure, will necessarily be committed to a 'technical' submission to the currently discovered laws.

The second part of my argument against Habermas' claim that the empirical sciences are necessarily connected with the viewpoint of 'possible technical control', will consist in drawing attention to the relevant variable of 'sponsorship'. I will begin my argument by agreeing with Habermas that "Today, however, sociology, to a growing degree is an applied science in the service of administration" (1974: 208). But contrary to Habermas, I will argue that this trend in sociology is not due to empirical social science's inevitable connection with the 'technical-administrative interest'. I will argue that the reason behind sociology's growing connection with 'administration', is to be sought not in the inner logic of the empirical-analytical mode of enquiry, but in the growing sponsorship of sociology by administrators. I will argue that it is sociologists' awareness of the use to which their administration-clients wish to put their sociological insights, which determines the administrative value of these insights, rather than the fact that "empirical-analytical enquiries (necessarily) produce technically utilisable knowledge" (Habermas, 1978: 219).

In order to elucidate my argument, I will draw on (and

criticise) the work of Paul Lazarsfeld, a sociologist who examines sociology's connection with the administrative setting: Lazarsfeld (1968) notes that sociologists' clients are often 'organisational leaders' who need to know the consequences of implementing certain social policies. These clients can benefit from information that sociology can provide concerning what happened when similar policies were implemented elsewhere. The information prevents the clients from overlooking relevant facts which are available at the time of making their policy decision. Such clients can also benefit from sociologists' concurrent evaluations of a project while it is in the process of implementation (the evaluations taking the form of examining the consequences of carrying out current policies). Lazarsfeld elucidates sociology's relation to administrators in the following way:

> Sociologists' clients are frequently organisational leaders who benefit from the kind of general sociological analysis that catalogues typical problems and weighs the consequences of various proposed solutions (1968: xii).

Lazarsfeld's stress on the fact that sociologists who serve administrator-clients, must investigate the consequences of encouraging certain policies, implicitly betrays his attitude of submission to known causal laws operating in the social structure: According to Lazarsfeld, sociologists discover the laws of social life and advise the administrators on how to work within them to bring about desired effects. It is known that if X occurs, then this causes consequence Y to follow; by recognising and submitting to these causal mechanisms, desired results can be achieved. What Lazarsfeld fails to realise is that sociologists' relation to administrator-clients infuses an inbuilt bias into the sociologists' work; the bias being in favour of working within known laws operating in the social structure, and bringing about minor shifts in the social fabric while keeping the basic 'master institutions' of society intact. He fails to recognize that the (radical) alternative of implementing

"underlying structural shifts" by manipulating "key points like the factor of private property in a corporate economy" (Mills, 1968: 11), becomes (one-sidedly) occluded when sociologists proceed to serve the 'organization leaders'. In keeping with Mills, I would argue that the fact that administrator-clients are concerned with particular 'typical problems' and wish to discover the most efficient and economical means to surmount these problems, influences the type of solution that sociologists will and must investigate. In Mills' terminology, the concern of administrators is with 'isolated' and 'immediate' problems for which 'practical' solutions must be sought; their concern is with removing the flaws in the social fabric by adjusting the disturbing elements therein. The proposed solutions of sociologists who are working in conjunction with administrator-clients, must thus not be disruptive of the social organisation and must be capable of integration into this social organisation with (in Parsonian terminology), a minimum shift in 'equilibrium'.

I thus agree with Habermas' claim that sociologists who are tied to administrator-clients, embrace an inbuilt bias into their work. But I disagree with Habermas that sociologists are linked to administrative interests through the fact that they follow an empirical-analytical scientific procedure of testing lawlike hypotheses. Rather I suggest that it is only when sociology <u>does</u> become tied to the administrative setting, that the empirical- analytical procedure becomes infiltrated by an inbuilt bias; it is when sociologists accept their role as feeders of information to administrator-clients (as for example does Lazarsfeld) that their work becomes linked to the "technical interest in control". When discussing particular research projects (in Chapter 5), I will substantiate my argument further by showing how the concern with narrow administrative problems limits the potential of empirical-analytical sociology.

THE FACT/VALUE DISTINCTION

HABERMAS' ATTACK ON THE POSITIVIST FACT/VALUE DISTINCTION

When discussing Habermas' attack on the positivist conception of facts and laws, I noted that he considers analytical-empirical science to be value-laden. In this section I will elaborate on Habermas' conception of the relation between facts and values.

Habermas attempts to dissolve the positivist separation of standards and facts in the following way: Firstly, Habermas argues that facts are constituted in the scientific domain only by virtue of the standards which the scientific community employs to "differentiate facts from mere spectres" (1978: 213). Habermas argues that facts are created with the aid of standards and are thus inextricably linked thereto. Furthermore Habermas argues that just as facts require standards for their constitution, so the "critical discussion of standards precisely includes ... recourse to so-called facts" (1978: 213) - standards are inextricably dependent on facts for their acceptance and existence. Because of this close connection between facts and standards in which both are dependent on each other for their existence and acceptance, Habermas feels justified in questioning the "positivist differentiation which permits a dualism of facts and decisions" (1978: 213). Habermas admits that there is a difference between facts and standards in that "the critique of an empirical scientific hypothesis and the critical discussion of the choice of a standard are not symmetrical" (1978: 214). But the point which he wishes to make, is that the discussions which lead to the acceptance of facts, and those which lead to the acceptance of standards, both involve normative and descriptive elements. The difference between the two types of discussion is that in the discussion related to the acceptance of facts, the relevant standards are not being contested; while in the discussion

related to the acceptance of standards, the validity of the relevant facts is not under scrutiny. Nevertheless, "the logical structure of the discussion" (1978: 214) is the same in both cases, because in both types of discussion facts and values are inseparably linked.

Having thus argued that the dualism of normative and descriptive knowledge is inappropriate, Habermas goes on to argue that the problem with the positivist distinction between facts and values is that it is unable to subject the standards governing the constitution of facts, to 'critical discussion' (1978: 214). This is because the rigid fact/value distinction allows positivists to entertain the belief that the facts that they discover are a value-free reflection of objective reality. In believing that standards are irrelevant to the discovery fo the facts, positivists are able to immunise these standards from critical examination and explication. Because of the positivist distinction between facts and values, the research process remains unaware of its origin in a specific 'life context' which embodies specific standards. Because of its claim to be offering a 'pure' replication of reality which is not impurified through the intervention of values, it is unable to recognise and account for the life-context in which it is embedded.

Habermas argues that this inability of the research process to probe behind its 'life reference' is of utmost importance in the realm of social science. The fact that social science is unaware of its origin in the "practical interest in the domination of objective processes" (1977: 155), means that it is able to block out all other life interests and usurp all other domains of praxis "under the slogan of ethical neutrality" (1974: 264). The distinction between facts and values, allows social science to remain ignorant of its tie to a specific (technical) interest and of its exclusion of "all other relation to life praxis" (1974: 264). Habermas argues that because such social scientists are unable to examine their knowledge guiding interests and to

recognise the life context from which science emerges, they 'fall back ideologically' upon these interests. The attempt to retain the fact/value distinction, thus leads to the social research process becoming unconsciously and ideologically committed to the technical interest in prediction and control.

Habermas elucidates further on why and how the fact/value distinction in the realm of social science leads to social science becoming committed "in favour of a single interest of which it is not even conscious" (1977: 158). Habermas notes that in the realm of social science, the fact/value distinction implies a corresponding distinction between natural laws and social norms in society. Scientific (descriptive) statements are regarded as reflecting the objective empirical regularities in the social world; while ethical (prescriptive) statements are regarded as referring to social norms, which are "posited and implemented under the threat of sanctions" (1977: 144). Habermas argues that this dissection of society into facts and norms, results from a false distinction between descriptive and prescriptive language. Because, according to Habermas, the prescriptive and descriptive moments of language are inseparably linked, it follows that the distinction between natural and normative laws in society becomes dissolved: Society cannot be divided into natural laws which are "independent of the influence of acting subjects" (1977: 144) and normative laws which <u>are</u> so dependent. All laws in society are simultaneously apprehended through both descriptive and prescriptive language structures. So-called <u>natural</u> laws in society are at the same time <u>normative</u> in the sense that they are only 'quasi-causal' and can be broken through the will and consciousness of human beings. Conversely, so-called <u>normative</u> laws assume an <u>objective character</u> and appear to have autonomous power although it is ultimately human subjects who are responsible for their perpetuation.

Habermas claims that because positivism is able to perpetuate the myth that facts and values are distinct and that scientific knowledge must be confined to knowledge of facts, it is able to immunise the so-called factual laws discovered, from critical evaluation. Because the so-called facts of social life are regarded as existents which have no normative content, the only proper way to grasp these existents (according to positivism) is to reflect them neutrally in theoretical descriptive statements. Critical evaluation of these so-called facts is thus stifled. The positivist separation between facts and values, with its consequence of separating social science from ethics, implies that social science becomes impotent to "evaluate aspects of reality (of which ideology, myths, etc. are of course a part) ... (and to) expose realms of ideology" (Held, 1980: 173). The stifling of criticism of the existent facts discovered in society, is regarded by Habermas as problematic; for Habermas these facts do have normative content and thus can and should be subjected to critical (ethical) evaluation. The sphere of ethics which examines and evaluates existent norms with a view to changing them if they prove to be inadequate, should not be divorced from social enquiries concerning the existent facts in society. The positivist distinction between facts and values which justifies such a divorce, is thus not only based on the false premise that facts and values are distinct, but has the disturbing consequence of failing to allow an ethical appraisal of the adequacy of the so-called facts. Under the guise of value-freedom, positivists are able to eliminate critical evaluative content from their scientific discipline. But this elimination of critical evaluative content, does not imply that empirical social science is value-free; on the contrary, social scientific studies which profess to be neutrally discovering the facts, contain a hidden normative content, for it is impossible to effectively separate the 'is' from the 'ought' realm:

> Significantly, this (selection of categories with which to understand society) is a prior understanding of how the society is, and at

> the same time, of how it ought to be - for the interested experience of a situation in which one lives separates the 'is' from the 'ought' just as little as it dissects what it experiences into facts on the one hand and norms on the other (Habermas, 1974: 210).

The problem with the positivist separation between facts and values is that is attempts to separate what in reality are inseparable, but is unaware of doing so. Thus although it remains necessarily committed to a set of standards, viz. the standards set by the status quo, it is unable to justify or examine this commitment.

Another, and no less important consequence of the positivist distinction between facts and values, is that values become regarded as inaccessible to rational consideration. The positivist separation between facts and values is accompanied by the (positivist) claim that knowledge can only be gained of facts and not of values. Reason cannot encompass knowledge of values, for values are ultimately subjective wishes - "their acceptance is based solely on a decision, a commitment". (Habermas, 1974: 266). The positivist distinction between facts and values has the consequence of relegating values to the realm "beyond any and every authority committed to rationality" (1974: 267). Ethics is not regarded as a cognitive discipline with the same status as empirical science. Instead, empirical science monopolises the realm of possible knowledge, claiming that it alone allows knowledge of reality to be attained. The consequence of the fact/value distinction is that questions concerning the adequacy of norms, which have been eliminated from the realm of empirical-scientific knowledge, become "utterly dismissed ... from the scope of rational discussions" (1978: 146).

Habermas argues that this relegation of values to the realm of irrationality, has important consequences in the political sphere. Habermas notes that because values are regarded as not accessible to rational comprehension in the same way

that facts are, the only way for policy makers to proceed, is to discover the most efficient and economical means of achieving given goals. The goals themselves which policy makers must attempt to realise, are not regarded as being "achieved by means of enlightened discussion carried on in public politics, ... but only by summation or compromise - values are in principle beyond discussion" (1974: 271). Thus the public sphere does not consist of enlightened discussion of normative questions, but rather of attempts to employ techniques in order to realise given goals. Habermas argues that it is this dismissal of 'practical questions' concerning the adequacy of norms, from the sphere of public life, which leads to political questions becoming reduced to the technical task of removing system dysfunctions. Instead of questioning the norms inherent in the given social organisations, public life becomes reduced to "the application of techniques generated by science to social problems for the realisation of specific goals" (Held, 1980: 265). The realisation of these goals does not, however, 'threaten the system' but in fact serves to perpetuate it by "guaranteeing a minimum level of welfare, managing the economy successfully and sustaining economic growth" (Held, 1980: 264). The social system becomes perpetuated by the fact that the state intervenes in an administrative fashion to solve particular problems facing the system, for example the problem of securing mass loyalty and the problem of improving the material and immaterial substructure necessary for the continued accumulation of capital (cf Habermas, 1976: 367).

Habermas argues that it is because the political sphere is geared towards solving particular problems and realising specific goals, that an unrecognised normative element becomes smuggled in. This is the normative standard that "behaving in accordance with technical standards is not only desirable but also 'rational'" (1974: 269). Habermas' argument is that by treating the goals of politics as goals concerning specific problem areas, an inbuilt bias becomes built into the political process. The bias is towards treating problems

as marginal problems removable through technical adjustment of the social organisation within the limits of the scientifically perceived laws of social life, i.e. the bias is towards retaining the basic social relations and laws in society - these social relations and laws being regarded as the parameters within which technical experts must operate.

It is important to note that Habermas regards the fact/value distinction as responsible on two levels for the existent 'technocratic consciousness'. Firstly, the fact/value distinction implies that practical, normative discussions are eliminated from public life because normative decisions are regarded as being ultimately irrational. Secondly, the fact/value distinction allows empirical sociology to serve administrative interests under the guise of value-freedom and to surrepticiously use its 'discovery' of objective lawlike connections, to impose a method of problem solving which is bent towards technical elimination of dysfunctions. The success of technical reason in unsurping the sphere of practical reason, is for Habermas a direct or indirect result of the complex of factors related to the (false) distinction between the factual and the normative.

THE RELATION BETWEEN CRITICAL SOCIAL SCIENCE AND ETHICS

Having criticised the positivist fact/value distinction and the attendant positivist conception of the relation between social science and ethics, Habermas proceeds to offer his alternative conception of how social science and ethics should be related: Habermas argues that the only way for social science to deal with the fact that descriptive and prescriptive languages are inseparably tied to each other, is to accept this tie and to develop a scientific theory which embodies a recognised value-commitment. He argues that such a theory, because it does not attempt to dissolve the indissoluble connection between facts and values, will be able to comprehend reality as it really is, i.e. as a

reality which is at once factual and normative. Habermas argues that if sociologists consciously accept the value-commitment connected with the 'emancipatory interest' and undertake to do sociology from the viewpoint of this interest, they will be able to comprehend social reality. The prescriptive moment of a value-committed sociology, will allow the true apprehension of the social object as an object capable of radical transformation. Furthermore, Habermas argues that only a sociology combining social inquiry with ethical evaluation, will be able to recognise that what poses as knowledge is in fact ideology. He claims that a dialectical sociology which has a recognised interest in "an emancipated society and an actualised adult autonomy for all human beings" (1974: 262) will be able to recognise analytical-empirical sociology as ideological and as not grasping social reality adequately. Such a dialectical sociology will be able to show the restricted conditions under which analytical-empirical knowledge does have validity - such conditions being those in which human being's purposes are connected with the 'technical' viewpoint. Dialectical sociology will be able to show that analytical-empirical knowledge in the social sphere interferes with the interest in emancipation because its conditions of validity interfere with the task of emancipating human beings from hypostasised social forces.

Habermas' argument concerning the necessity of undertaking sociology from the viewpoint of the emancipatory interest is thus based on a number of claims:

1. The first is that such a dialectical sociology will be able to recognise analytical-empirical sociology as a set of hypotheses which mystify the true character of society and social relations, and which contribute to the perpetuation of the quasi-causal laws operating in the social structure. Dialectical sociology will be able to reveal the value-commitment behind empirical sociology and to recognise that this value-commitment interferes with the emancipatory cognitive interest. Dialectical sociology will thus be able to reveal the fact that empirical

sociology is not serving the needs and demands of the entire society but only of the dominant class (whose interest it is to perpetuate the fundamental structures of the social system).

2. The second claim is that dialectical theory, by being aware of its value-commitment, escapes the falsity of vision to which analytical-empirical sociology is subject. It is because analytical-empirical sociology contains an unrecognised value-commitment that it offers a false (ideological) picture of social reality. Dialectical theory, on the other hand, by recognising its value-commitment, is able to grasp social reality without at the same time distorting the nature of this reality. As Habermas puts it: "Here (when the emancipatory viewpoint is employed) the interest of reason cannot corrupt reason's cognitive power because ... knowing and acting are fused in a single act" (1972: 212). According to Habermas, when sociology consciously accepts the viewpoint of the emancipatory interest, then the interest does not intervene in the process of truth discovery. This "interested employment of reason" (1972: 209) does not obscure the social object which reason is attempting to comprehend but allows the social object to be grasped as it really is. In other words, when reason embodies the emancipatory interest, it will be able to capture the social object adequately (at the very moment of transforming it).

3. The third claim of Habermas is that only a dialectical sociology committed to the emancipatory interest can undertake the moral task of "seriously intervening in the compulsive interrelations of history" (1974: 281). Only if sociology becomes consciously tied to the ethical task of liberating human beings from hypostasised social forces which embody structures of domination, can the process of self-reflection be set in motion. Habermas uses the model of psychoanalysis to demonstrate how the

dialectical sociologist's information about the mere quasi-causality of the laws to which individuals compulsively submit, can set off a process of reflection in which the individual becomes aware of his potency against these hitherto unrecognised dependencies. The unveiling of the dependencies leads to the disarming of their power over the victim, who now comes to recognise that their continued perpetuation lies in his unreflected acceptance thereof. Habermas asserts that once individuals in society obtain enlightenment concerning the nature of the so-called causal social laws governing their actions, the power of these social laws will be broken, and emancipation can take place. The sociologist's role is to create the conditions for such enlightenment by offering the members of society an interpretation of their position in society. Sociology's role is to contribute to the formation of the 'good life' in which the 'systematic distortions of communication' in society are dissolved, so that a 'practical discourse' can then be conducted. A sociology which is combined with an ethical interest in the 'good life' could offer "universal enlightenment, and by virtue of it, the uninhibited discursive formation of will, possible for all participants ..." (1974: 139). Instead of individuals in society succumbing to the structures of speech and action which contain "relations of power surrepticiously incorporated" therein (1974: 12) and which ipso facto entail distorted communication, individuals will be able to render these compulsive structures inapplicable.

THE VERIFICATION OF CRITICAL SOCIAL SCIENCE

Habermas' arguments concerning the verification of a sociological theory created with practical, ethical intent, revolve around the claim that such a theory will demonstrate its truth by initiating a process of self-reflection which leads to emancipation. Wellmer elucidates this position: "ultimately ... critical theory can prove itself only by

initiating a reflective dissolution of false consciousness resulting in liberating praxis" (1971: 72). Habermas justifies the use of this criterion of verification by arguing that this is the method of verification adopted in psychoanalysis. In psychoanalysis, the truth of the psychoanalist's interpretation of his patient's neurosis is proved when the patient comes to accept this interpretation and therewith is able to abolish the causal mechanisms which governed his behaviour:

> The appropriateness of the interpetation, which is theoretically derived and applied to the particular case, requires confirmation in successful self-reflection; truth must converge with authenticity - in other words the patient himself is the final authority (Habermas, 1974: 29).

Likewise, Habermas argues that the sociological theory which 'diagnoses' the 'neurosis' of society, is proved to be correct when the individuals in society to whom the theory refers, accept the theoretical interpretation of their plight. The sociological theory is not validated until

> all those potentially involved, to whom the theoretical interpretation has reference, have ... had the chance of accepting or rejecting the interpretation offered under suitable circumstances (1974: 37/38).

Habermas argues that the present circumstances are not suitable for deciding the truth of the theory because distorted communication is still rife in society, and individuals are thus not able to use language to establish a genuine consensual agreement concerning the validity of the proffered interpretations. The discourse which will "alone be able to decide the truth of the theory" is "impossible under the given circumstances" (1974: 39). Before a dialectical theory can prove itself valid, it must be able to abolish the ideological moment of language, for this ideological moment renders the testing of the theory

under suitable circumstances impossible; as long as language is still a "medium of domination and of social power" (Habermas, quoted in Pilot 1977: 273) the understanding of participants is tinged with prejudices resulting from socialisation processes, thus precluding the establishment of the validity of the sociological theory.

CRITICISMS OF HABERMAS' ACCOUNT OF THE RELATIONSHIP BETWEEN FACTS AND VALUES

I shall divide my criticism of Habermas' conception of the fact/value relationship into three sections. In the first section I will deal with his attack on the positivist conception of this relationship; in the second I will deal with his discussion of the nature of values; and in the third I will deal with his arguments concerning the necessity of conflating science and ethics in the sociological enterprise.

Criticisms of Habermas' Arguments against the Positivist Fact-Value Relationship

Habermas argues that facts and values are inextricably linked because all discussions involve both normative and descriptive components. The standards of empirical-analytical science lead to the acceptance of natural and social facts, while the empirical facts in turn serve as motivating factors for the acceptance of normative standards. This inseparable link between normative and descriptive elements in discussions, implies a corresponding inseparability of factual and normative reality. When discussing Habermas' conception of natural and social laws, I pointed out that the existence of standards adhered to by the natural and social scientific community, does not imply the inseparability of facts and norms in reality: The standards governing scientists' acceptance of factual laws, might be such as to allow objective independent laws to be grasped or mirrored in

scientific languages; the standards need not necessarily play a part in creating the factual laws discovered. It is only through prior knowledge of the object domain that we could know whether scientific standards were grasping or constituting the 'discovered' facts. With respect to the social realm, Habermas cannot legitimately use the argument concerning the link between prescriptive and descriptive language to demonstrate the inseparability of natural and normative laws in social reality, i.e. to demonstrate that so-called natural laws in society are only quasi-causal because they depend for their operation on human subjects' adherence to normative standards. Habermas' attempt to 'prove' the invalidity of the Popperian dualism by this argument, has failed.

The second point in Habermas' attack on the positivist fact/value distinction which I wish to criticise, is his concern with the inability of analytical-empirical science to "probe behind its life reference" (1978: 155). Habermas is concerned with the fact that the analytical-empirical sciences, because of their claim to be offering a value-free description of the (natural or social) world, are unable to recognise the technical interest governing their 'discoveries'. Habermas argues that the consequences of the fact/value distinction is that analytical-empirical social science becomes "committed in favour of a single interest of which it is not even conscious" (1977: 158). But as I noted in a previous section, scientists following an analytical-empirical procedure need not necessarily claim to offer a value-free account of objective reality. The empirical method of testing lawlike hypotheses need not be accompanied by a positivist understanding of the task of science. This means that analytical-empirical social science need not be "unaware of its origin in a specific life context" (1977: 155):

> If social scientists have a conventionalist self-understanding of their task, then they will be aware that they are merely seeking to offer heuristic devices which serve the explanatory ideals of the science and that the origin of these devices

lies in the explanatory ideals; they will be able to probe behind the 'life reference' of science, and to consider the origin of their scientific theories. Thus Habermas' attempt to show that the use of the scientific analytical-empirical procedure necessarily implies the unconscious acceptance of certain values and ideals, ignores the possibility of conventionalist social scientists.

But the important point about conventionalists' conscious acceptance of the values governing the scientific enterprise and accounting for its origin, is that these values are not regarded as identical with the values signifying commitment to the social status quo. Habermas has taken it for granted that the values governing the acceptance or rejection of scientific facts and laws, are identical with a commitment towards the preservation of the status quo. But Habermas' view does not take into account the fact that the 'interest' in deriving theories with explanatory power, could be compatible with a value-commitment towards radically altering the present quasi-causal social laws.

The fact that social scientists following empirical scientific procedures may have a conventionalist self-understanding, also leads to a third point on which to criticise Habermas: Apart from not necessarily being unaware of the origin of science in a specific life context, sociologists may also not necessarily divide the social world into natural and normative laws, to which they attribute unequal ontological status. Habermas, in claiming that the fact/value distinction necessarily leads all social scientists following the analytical-empirical procedure to divide the social world into objective laws and subjective values, has again ignored the possibility of conventionalist social scientists. Conventionalist social scientists following the analytical-empirical procedure would accept a fact/value distinction in the sense that they see descriptive language as intrinsically different in purpose from prescriptive language, that is, in the sense that they see 'science' as intrinsically different

from 'ethics'. But their fact/value distinction, and their following of the analytical-empirical procedure in social science, would not lead them to divide the social world into objective facts and subjective values: Conventionalists attribute equal ontological status to facts and values, regarding the former as a product of the 'logic of science' and the latter as a product of the 'logic of ethics'; both facts and values are products of subjective human activity.

The conventionalist fact/value distinction and the attendant separation of social science from ethics, does not have the (admittedly dangerous) consequence of seeing the social world as a set of objective facts alongside a set of subjective norms. Habermas' critique of the fact/value distinction does not successfully account for, or cope with, the conventionalist claim that science and ethics are distinct but that this does not imply the existence of objective social laws. In other words, even agreeing with Habermas that the fact/value distinction as used by positivists has the dangerous consequence of reifying the social world, does not compel us to accept Habermas' view of facts and values and of science and ethics. The other alternative is to accept the conventionalist view (which also recognises the danger of reifying the natural and social world).

Criticisms of Habermas' Conception of the Nature of Values

Habermas criticises the positivist fact/value distinction for falsely embodying the stance that values are incapable of rational comprehension. Habermas believes that the positivist stance that values are ultimately subjective wishes, fails to take account of the fact that values can be subjected to rational discussion. Habermas argues that the falsity of the positivist conception of values as incapable of rational comprehension, is proved by examining the origin of values in rational discourse. He claims that (rational) discourse "serves the justification of problematic claims to validity of opinions and norms" (1974:18); it is in such discourse that "norms

are transformed into recommendations and warnings which may be correct or appropriate but also incorrect or inappropriate" (1974: 18). The purpose of moral discourse is to establish the validity of moral norms by "rendering inoperative all motives except solely that of a co-operative readiness to arrive at an undersanding" (1974: 18). Through this discourse a universal and unconstrained consensual agreement concerning the validity of certain norms can be established. Habermas argues that the possibility of establishing such a consensus is 'no mere fancy' and is posited in the structure of language: "With the very first sentence the intention of a general and voluntary consensus is unmistakably enunciated ... everyone who speaks a natural language has intuitive knowledge..." of the possibility of reaching an understanding (1974: 17).

In discussing the possibility of gaining cognition of the realm of values through rational discourse, Habermas (1974: 19) refers to Husserl's mode of procedure of bracketing the taken-for-granted reality of the Lebenswelt in order to gain insight into essential reality: Through "bracketing the general thesis", the validity of everyday reality is placed in doubt, and this allows the transcendental subject to gain cognitive insight into essential reality.

In criticising Habermas' critique of the positivist conception of values, I must firstly note that I agree with Habermas that the conception of values as having an essentially different ontological status from facts, can be attacked. (I previously attacked the Popperian claim that values and facts necessarily have a different ontological status, by showing that this claim requires prior knowledge of the object domain of science and of ethics, and by showing that the conventionalists offer an adequate alternative to the Popperian position). Furthermore I agree with Habermas that the positivist position that values are ultimately irrational, can be revealed as arbitrary and subject to criticism. It should be noted that the conventionalist view of ethics as a rational discipline is compatible with

Habermas' view that values are not ultimately irrational. Where conventionalism differs from Habermas, however, is in its different conception of ethical 'rationality'. I will now elucidate Habermas' conception of ethical rationality, and offer a critique thereof in the light of the conventionalist conception of human rationality:

Habermas' conception of ethical rationality is similar to his conception of scientific rationality in the sense that he believes that each type of rationality generates a unique 'mode of appearing' of the reality to which it is addressed: Thus with regard to the scientific enterprise, Habermas adheres to the Kantian position that the a priori framework governing science, results in a unique scientific reality appearing to the scientific community.[2] Furthermore, just as Habermas believes that the rational enterprise of science results in a single mode of objectifying scientific reality (so that consensual agreement amongst scientists is not problematic) so he believes that the 'emancipatory interest' will result in one valid or correct set of normative standards being adopted through a 'discursive will formation'. Habermas believes that the criteria of validation for moral standards, result in one 'mode of appearing' of moral reality, which can be known by emancipated subjects. This is evidenced by Habermas' reference to Husserl's methodology. Husserl's procedure of bracketing the general thesis - to gain knowledge of moral reality - is built around the assumption that there is one essential reality for the transcendental subject to grasp. Absolute knowledge of essences is for Husserl possible, the validity of such knowledge being measured against its ability to replicate

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2. Habermas accepts the Kantian claim that the scientific a priori framework does not provide knowledge of the 'ding an sich' but only of reality as it appears to us. Where Habermas disagrees with Kant is in his view that there are frameworks besides the scientific, from whose point of view reality can be objectified. Furthermore, Habermas believes that the emancipatory transcendental framework will not merely provide knowledge of the social world as it appears, but rather as it really is. This transcendental framework does not distort the social object in the moment of its being 'captured' by the knower.

the essences "with perfect clearness" (Husserl, 1963: 110): In the successful intuition of essences, the object referred to "confronts us as a self given in its purity, wholly and entirely as it is in itself (1963: 106). Habermas' reference to Husserl is significant in that Husserl's bracketing procedure (which Habermas wishes to employ) is aimed at discovering essences which can be known absolutely, i.e. correctly or incorrectly intuited.[3]

The problem with Husserl's ontological and epistemological position - which offers ontological status to the essences constituted by the 'transcendental ego' and which measures true knowledge in terms of the replication of this reality of essences - is that it does not adequately account for the following question: "Why, when each individual performs the series of 'reductions' which allow him to reach the transcendental ego, does he constitute essential reality in exactly the same way as his fellowmen who too perform the series of reductions?" Husserl answers this question by claiming that the transcendental ego constitutes essential reality in a unique fashion, so that intersubjective agreement concerning essential reality is guaranteed as long as individuals have performed the series of reductions. Once the 'eidetic reduction' has been performed, the phenomenon will necessarily appear in its essentiality in a particular fashion - it will present itself with 'perfect clearness' in a unique fashion to all individuals. But this answer of Husserl begs the question, for it is precisely the claim that there is only one mode of constituting 'essential reality' which is problematic. In keeping with the conventionalist position, I would agree with Husserl that reality can be regarded as the reality constituted by intentional consciousness. But I would disagree with

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3. Husserl adheres to the (conventionalist-type) notion that reality is the reality as constituted by consciousness, and has no meaning or being independently of this consciousness. But he goes on to attribute ontological status to the essential reality constituted by the transcendental ego. The reality so constituted is the reality which 'has being' and which 'exists' for the knower to (successfully or unsuccessfully) intuit.

Husserl's claim that this reality should be attributed ontological status and that it is a given which can be successfully or unsuccessfully intuited. I would argue that this claim embodies unjustifiable assumptions, and that we can equally well assume that the 'reality' constituted by the community of individuals is not given once-and-for-all and cannot be correctly or incorrectly grasped by human rationality.

Having questioned the Husserlian methodology which Habermas draws on in his argument concerning the possibility of reaching a consensual agreement through 'discursive will formation', I have shown that this argument is inconclusive, and does not prove that values can be cognitively grasped by 'emancipated' human beings. Contrary to Habermas I would argue that although the purpose of the 'ethical enterprise' provides a framework within which moral discussions take place and within which moral arguments can be judged for moral 'validity', this does not ensure that one correct moral code will or can be established. The conventionalist claim that the general purpose of ethics - which is connected to the "requirement that preventable suffering should be avoided" (Toulmin, 1968: 142) - is wide enough to embrace a number of moral codes, seems (to me) more compelling. It is more compelling to me precisely because of the difficulty in 'proving' that ones intuitive eidetic grasping of the moral reality is in fact absolutely correct.

Held's arguments against Habermas, summarize the problems with Habermas' position which I have attempted to locate: Held notes that Habermas' theory of communicative competence assumes unjustifiably that the "contours of the good and true life ... (can be specified and that) disputes between, for example Marcuse and Rawls" can be resolved (1980: 398). He notes that Habermas has still not convincingly indicated how "disputes between competing positions claiming to establish objective moral and political stances" can be solved (1980: 398).

Before completing this section, I must draw attention to the way in which Habermas, apart from referring to Husserl, attempts to justify his stance that communicative competence will ensure a consensual 'discursive will formation'. Habermas argues (1974: 17) that everyone who "speaks a natural language" has intuitive knowledge of the possibility of "reaching an understanding" and can distinguish, in principle, a true consensus from a false one. But this argument smacks of the Popperian-type argument to the effect that everyone knows what truth, or correspondence with the facts, means. This type of argument is fallacious because it is precisely the question of whether 'everyone' is correct, which is problematic. Even if everyone intuitively believes that he can in principle distinguish a true from a false consensus, it is the correctness of the intuition which needs to be established. Nor does pointing to be 'concept of language' which embodies the 'intention' of 'reaching an understanding' prove that the possibility of reaching an understanding in the way in which Habermas envisages, can become actualized.

The ethnomethodological account of social interaction offered by Harold Garfinkel, supports the idea that the concept of 'reaching an understanding' is an ideal which is not actualised in social interaction: Garfinkel argues that the parties in social interaction contexts project their particular meanings into these contexts, so that the accomplishment of social interaction involves 'social work' to negotiate a common taken-for-granted reality. The taken-for-granted reality which emerges in the negotiation is not understood in the same way by all parties in the interaction, who all nevertheless attempt to make sense of the interaction so as to sustain the taken-for-grantedness of social reality. The use of language in social interaction does not express the fact that common meanings have been communicated in this context, but merely serves to create the illusion of such taken-for-granted commonality of meaning. Phillipson expresses this taken-for-grantedness succinctly:

> We all operate with the assumption that for all practical purposes others "know what we mean" in our accounts; it is this assumption

> along with others which allows social interaction to flow in a relatively unhindered way (Phillipson, 1972: 104).

But although for all practical purposes actors assume a congruence of perspectives, in actual fact social interactions does not involve shared agreement on substantive issues.

> No matter how specific the terms of a common understanding may be, they always possess a 'wait-and-see' quality (what Garfinkel labels the 'etcetera clause') (Walsh, 1972: 21).

Ethnomethodologists would argue that although it may appear to individuals as though the structures of language embody the 'intention' of 'reaching an understanding', this is because individuals are unaware of the actual function of language which is to sustain the myth of the taken-for-granted objectivity of the social world. Ethnomethodologists offer an alternative account of the structures of language to that offered by Habermas, and at the same time are able to explain why individuals (falsely) intuit that 'reaching and understanding' is a possibility. In the light of the ethnomethodological alternative it is, as Held (1980: 396) notes, difficult to sustain the claim that "all speech is oriented to the ideal of a genuine consensus".

By showing how the ethnomethodologists could counterargue Habermas' claims about 'reaching an understanding', I have attempted (once more) to indicate the inconclusive nature of Habermas' claims. The main point in indicating this inconclusiveness, is not to pose ethnomethodology (or for that matter, any '...ism' or '...ology') as the correct counterposition; rather, the aim is to point to the naïvity involved in any hope to conclusively establish the correctness of a particular position, in the face of viable counterpositions.

Criticisms of Habermas' Conception of the Necessary Task of Sociology

Habermas argues that a critical (dialectical) social science connects the spheres of 'is' and 'ought' by embodying a value-commitment towards emancipating human subjects from hypostasised social forces. The criteria according to which the 'correctness' of a critical social theory is judged, are connected with the (ethical) task of implementing a just, free and good society. Critical social theory is thus indistinguishable from ethics, because it seeks to judge social phenomena at the same time as it seeks to understand them. The description of social phenomena is tied to ethical condemnation and recommendation, the language of critical social science being simultaneously prescriptive and descriptive.

Habermas notes that the discussions of normative standards always embody reference to the empirical phenomena which motivate the acceptance of these standards. He thus argues that standards rely on facts for their acceptance. This position is consistent with the conventionalist one, and I agree with Habermas' argument thus far. Habermas also notes that in describing social phenomena as oppressive and unjust, and in revealing realms of ideology, an inevitable prescriptive element is involved in this description. This position of Habermas is also consistent with that of the conventionalists, who accept the fact that a description from the moral point of view has prescriptive elements (cf Kovesi, 1967: 146): A description from the moral point of view involves calling something by the correct moral notion, i.e. it involves recognising whether or not the object possesses the relevant features necessary for conceptualising it under a certain moral category (cf Kovesi, 1967: 63). This is a descriptive task, but at the same time the description has action guiding force because it is a description from the moral point of view. Thus following a conventionalist position, I agree with Habermas that insofar as social reality

is being described from a moral point of view (with the purpose of judging and condemning), the language describing this reality will be the language of ethics and will have 'practical intent'. My argument is that insofar as the 'theorist' is viewing social reality as a reality of normative standards, his description of this reality will be a description from a moral point of view; such a description will offer (ethical) knowledge which is not rendered less valid by the value-commitment embodied in the description. Habermas can thus legitimately claim that descriptive knowledge of social reality is not necessarily hampered through the introduction of a value-commitment and an ethical moment.

But I now argue that Habermas cannot legitimatley assume that all quests for knowledge of social reality must be undertaken with 'practical intent' and that all correct descriptions of social reality must involve a (moral) value-commitment. I argue that the quest for 'knowledge' of social 'reality' might equally well be undertaken with a 'scientific intent' of rendering the unexpected expected, by framing explanatory concepts and laws. I argue that knowledge gained of social 'reality' might be gained from different points of view, and furthermore need not be regarded as absolute in the sense of allowing the moral or empirical scientific 'theorist' to grasp reality as it really is. This leads to a further criticism of Habermas: Habermas assumes that critical sociological knowledge of social reality - because it dissolves the separation between 'is' and 'ought' - will capture the social object in an undistorted fashion. But I claim that all that the dissolving of the descriptive and prescriptive element of language does, is offer us a description of social reality from a moral point of view. This description is ethical 'knowledge', but cannot be regarded as absolute knowledge in the sense that an a posteriori social object is being successfully replicated in our (moral) language structure. The search for ethical knowledge of social reality will not, as Habermas hopes,

resolve all the problems connected with the attempt to obtain a true account of reality 'as it really is'. There is no justification for assuming that the value-commitment of the ethical enterprise will offer an objective account of the social object. The conventionalist claim that 'critical' knowledge of social reality is knowledge that the moral community 'creates' by framing moral notions which reflect the purposes of condoning and blaming, is an equally viable claim. Furthermore, the advantage of accepting the conventionalist claim, even though I admit that its ontology and epistemology may be wrong and that Habermas' may be right, is that it allows a (partial) solution to the problematic and inconclusive nature of all absolute claims about social reality. The strength of a conventionalist-type relativism is that it poses as a response to the opaqueness of all absolute claims - which necessarily rely on questionable and unprovable assumptions.

In order to substantiate further my position that Habermas' claim concerning the absolute validity of critical theory's moral descriptions of social reality, is unproven and suspect, I will point out the flaws in Habermas' arguments which 'prove' the verifiability of critical theory: Habermas argues that the psychoanalytic model points to the fact that 'under suitable circumstances' the truth of a theoretical interpretation of individuals' positions in society, can be verified by appealing to the individuals themselves. When the individuals to whom the theory is addressed, support the theoretical interpretation and use it to accomplish emancipation from the 'causality of fate', the theory is verified as correct. The problem, however, with this criterion of verification of Habermas, is that it presupposes that the 'suitable circumstances' in which the theory can be verified, are in principle obtainable. This presupposition is connected with the presupposition that individuals can consensually accomplish 'discursive will formation'. For it is only under the conditions that individuals enter into a true consensual agreement in a discourse which "decides the

truth of the theory" that the theory can be adequately verified (1974: 39). The problem is whether the possibility of distinguishing a true from a false consensus is, as Habermas hopes, posited in the structures of language. I previously argued that this possibility remains dubious as long as an ethnomethodological account of language is entertained. The dubiousness of this possibility renders any proffered distinction between true and false consensus, and any claim that a given consensus is a true or false one, open to question. Given that we cannot be confident of knowing that we can distinguish a true from a false consensus, I suggest that we have to accept that the consensual negotiation which is established in moral discourse, provides the only criterion for 'discovering' the 'truth' about social reality (as a normative reality).

The idea of co-creating a social reality from the point of view of 'discovering' a workable solution to problematic social situations is discussed by Hare (1981). Hare notes (1981: 14) that 'creative problem solving' requires that the concerned parties discover "an entirely new way of looking at the problem" which transcends the perspectival vision of any particular party. He argues (1981: 14) that the highest form of creativity involves a 'paradigm shift' in the Kuhnian sense, in which the reality (perspective) of each party becomes shifted and an alternative perception of the problem is created. Hare's reference to Kuhn is significant for it points to the fact that Hare regards the new perception of the situation which has been consensually created, as not being verifiable for its absolute correctness. The new perception of the situation is a reality which has been established through the negotiations of the concerned parties, and its validity-status cannot be judged in any other terms than that the parties have co-created a solution which is 'mutually rewarding' (1981: 4). There is no independent means of deciding what reality a 'true consensus' would create, or of distinguishing a 'true' from a 'false' consensus (just as in the Kuhnian account of science there is no

objective reality which serves as a measurement for distinguishing a 'true' from a 'false' account of the world). Hare's account of the process of co-creation provides a viable alternative to Habermas' account of the process of verification of the truth of critical social theory. Hare's discussion indicates that rather than regarding individuals' interpretations of their positions in the social structure as providing verification of the prior truth of critical sociological interpretations, one can regard the 'truth' of such interpretations as only emerging in and through the co-creation of novel interpretations through a consensual problem solving process.

I have thus far questioned Habermas' claim that critical social science must be undertaken because it reveals the social object (society) as it really is. I have argued that this claim is based on the unjustified assumption that the value-commitment of ethics allows 'correct' knowledge of objective social reality to be gained, rather than allowing moral 'reality' to be created by the moral community.

I now wish to tackle Habermas' further claim that without critical social science, the emancipatory interest is stifled: My argument against this claim is a development of my previous argument that the purposes governing empirical social science are not identical with the value of preserving the status quo: Insofar as the purposes of empirical science are merely to develop applicable explanatory concepts, this task need not interfere with the practical (ethical) task of establishing a new social order. For example, science could frame descriptive and explanatory concepts concerning the effects of capitalist structures on, say, the relationship between the variables of health and class, seeking to implement fresh, noncapitalist conditions to examine the way in which previous laws (relating to the health of the population) are or are not rendered inapplicable. The moral community, on the other hand, who are engaged in the ethical

enterprise, may be discovering exploitation inherent in present social structures, so that they wish to implement an alternative structure in which this type of exploitation is removed. The moral community may notice that present capitalist social structures amount to the undesirable immoral situation of allowing inconvenience and suffering of workers who have to work under uncomfortable conditions dangerous to their health. This would be a relevant moral reason for attempting to change the social structures responsible for this situation. Toulmin offers an instance of an undesirable moral situation which, with the aid of moral logic, is alleviated:

> If you found that your garden was being cultivated by a team of slaves, who were whipped until they produced all the flowers and vegetables you asked for, you wouldn't ask for them anymore, would you? (Toulmin, 1968: 139).

The principle that "one should not accept anything which has been got by unnecessary suffering" (1968: 138), a principle tied to the 'purpose of ethics', will compel the moral community to seek an alternative social organisation in which the institutions causing such unnecessary suffering, are abolished. In the light of Toulmin's conception of moral reasoning, one could argue that the moral incentive to change social structures which are hazardous to the health of workers and cause unnecessary suffering, may motivate the current moral community to examine capitalist structures more closely in order to reveal unnecessary forms of exploitation therein. This moral examination of capitalist structures by the ethical enterprise would be compatible with the goals and purposes of empirical social scientists seeking to offer explanatory insight into capitalist laws and wondering about the general applicability of these laws. The practical (radical) moral task of fundamentally changing the social order, would thus not be hindered by empirical social science and its goals, and furthermore, ethics as a separate

discipline from empirical social science, would be aided in its discovery of moral truths by the insights of science (such as the insight that the laws relating to ill health can be rendered inapplicable in different social circumstances). This example indicates that it is not necessary to conflate social science with ethics in order to achieve the practical (radical) goal of emancipation from capitalist structures. (Radical) ethics and empirical social science may remain separate but mutually compatible disciplines. They are separate because they originate in different human purposes. They are mutually compatible because ethics relies on facts for the success of its reasoning, and some of these facts may well be the facts originally generated out of the scientific purpose of framing explanatory concepts and laws.

Habermas' argument for conflating social science and ethics on moral grounds, fails to take account of the conventionalist view of the scientific and ethical disciplines. In this view, the compatibility between the emancipatory interest of a 'radical' ethics, and an analytical-empirical social science, is guaranteed by the future-orientedness of the conventionalist self-understanding. Precisely because conventionalist scientific concepts are geared towards a changing empirical environment, conventionalist social science could provide relevant material with which to frame 'practical' moral notions. Given the conceivability of a conventionalist self-understanding of social science, there is no reason, then, to accept Habermas' plea to unite social science and ethics on moral grounds.

CONCLUSION

Habermas' critique of positivistically oriented sociology, is geared towards demonstrating the necessity of undertaking a critical social theory which will be at once descriptive and prescriptive. His arguments hinge on the claims that:

1. A separation of social science from ethical concerns,

implies a distorted vision of the social object and leads to reification of the social world.

2. A separation of social science and ethics, stifles the emancipatory interest of mankind.

3. Critical social theory offers true knowledge of the social object.

In this chapter, I demonstrated that a conventionalist social science - which regards social science as separate from ethics, and facts as logically distinguishable from values - is able to counterargue these claims of Habermas.

To the first claim, conventionalists could retort that:

a. Knowledge of whether the social object is being distorted through (noncritical) social science, requires prior access to the social object domain.

b. Insofar as a reification of the social object does represent its distortion, a conventionalist social science would not fall into the danger of unnecessarily reifying the social world by treating social laws as universal constants.

c. The aim of analytical-empirical science is not to capture the social object in an undistorted fashion, but to offer heuristic devices which render the social world 'intelligible'. The quest for undistorted knowledge of the external social 'world', is a wild goose chase with no goose.

To the second claim, conventionalists could retort that analytical-empirical social science only stifles the 'emancipatory interest' to the extent that it serves administrator-clients and/or is positivistically oriented. Insofar as analytic-empirical social science is conventionalistically oriented, it will not be incompatible with the emancipatory interest.

To the third claim, conventionalists could retort that Habermas cannot 'prove' that critical theory's enquiry offers correct knowledge of the social world, for this claim rests on a questionable conception of human rationality.

In terms of my distinction between epistemological and ontological objectivism, one could characterise Habermas as having an epistemologically objectivist stance. His epistemological objectivism lies in his belief that critical theory offers knowledge of the social world 'as it really is', and reveals the truth about society. Habermas' ontological nonobjectivism lies in his belief that the social 'object' is at once subject and object, that is, at once a set of normative standards and of reified social relations. Habermas' failure to distinguish between epistemological and ontological objectivism in his critique of positivist objectivism is significant: It allows him to attack positivist epistemological and ontological objectivism while unjustifiably assuming that his own position is immune to the criticisms which he has levelled against objectivism. (Habermas would evidently characterise his own position as a nonobjectivist one by virtue of what I have called his ontological nonobjectivism. In this way he skirts the problems involved in justifying his (epistemological) objectivism).

By defining 'objectivism' in a way which allows him to criticise the positivist brand of objectivism while immunising his own brand against similar criticisms, Habermas oversimplifies the problems involved in attempting to prove any absolute claim about reality or about the methodology for knowing reality. He fails to recognise the similarities between Popper's (unsuccessful) attempt to conclusively prove the validity of the hypothetico-deductive view, and his own attempt to prove the validity of his world view. He fails to recognise that both attempts ultimately embody the same lacuna.

It is in the light of the failed attempts of both positivism and of Habermas, to prove the validity of their absolute claims about what truth is and what reality comprises, that my suggestion to adopt a conventionalist-type relativism becomes more intelligible. It is because conventionalism inherently allows for the constitution of a 'human' reality negotiated in accordance with human purposes, and consequently shuns the pursuit of objective truth, that I regard it as a partial solution to the (human) problems generated by unprovable absolute claims.

A CRITICAL EXAMINATION OF HERBERT MARCUSE'S ATTACK ON POSITIVISM

INTRODUCTION

Marcuse criticises the positivist proposed methodological procedure for the social sciences. Like Habermas he argues that this procedure stifles critical thought and leads to a sociological conservatism. Marcuse's critique of positivist empiricism is, however, different from Habermas' in that it revolves primarily around the positivist definition of operational concepts. Marcuse attempts to demonstrate that positivist operational concepts are unable to grasp reality in all its moments and that 'dialectical' concepts are more equipped to do so. A large part of this chapter is devoted to analysing Marcuse's arguments in this regard. The relevance of Marcuse's critique of positivist operationalism is noted, but his 'dialectic' alternative is in turn criticised in the light of conventionalism. The attempt is to show that conventionalism constitutes not only a viable but also a superior alternative to Marcuse's 'dialectical' proposals.

Marcuse's claims concerning the verifiability of critical theory are similar in content to those of Habermas: Like Habermas, Marcuse argues that critical sociological theory is capable of validation but that this validation is not hypothetico-deductive-type verification. Whereas Habermas resorts to psycho-analytic theory to justify his validation-claims, Marcuse resorts to other arguments, which are examined and criticised in this chapter.

The fact/value debate which has reverberated through the thesis, recurs again in this chapter. Marcuse's arguments concerning the crucial link between description and

prescription - that is, between scientific apprehension and critical appraisal - are examined. The conventionalist challenge to Marcuse's position is presented, and the advantage of accepting conventionalism above Marcusianism is located.

The aim of the chapter is to highlight the unjustifiable assumptions embodied in Marcuse's definition of 'truth', 'reality' and 'thought', and to point to problems connected with the acceptance of these definitions. The fundamental danger inherent in these definitions, is that they allow ultimately uncertain and unprovable claims, to pose as correct and objective; they offer no means of adjudicating between competing perspectives and they necessitate a resort to dogmatism when faced with alternative perspectives. It is in the light of these problems that conventionalism is presented as a compelling stance.

This chapter's structure takes the form of presenting Marcuse's position as an interrelated coherent whole, and thereafter offering a detailed critique of various of his arguments.

AN ELABORATION OF MARCUSE'S POSITION

MARCUSE'S ATTACK ON THE POSITIVIST CRITERION OF MEANING

Marcuse notes that the positivist criterion for meaningful concepts, in which concepts must ultimately be reducible to observational experience, has led to the proliferation of "scientific as well as common sense operationalism"(1964: 142). Marcuse claims that this effort to operationalise all concepts in order to render them meaningful, is

accompanied by a capitulation to the facts and an inability to apprehend the inadequacy of the given empirical reality: The positivist quest for operational concepts implies the "surrender of thought to everything that exists" (1977: 327); it implies the affirmation and acceptance of the existent empirical reality. Because thought patterns are restricted to reflecting the facts through operational concepts, critical thought, which aims at negating the present order of things, is suffocated and rendered impotent. Marcuse argues that in the realm of sociology, the use of operational concepts implies that sociology becomes ideologically tied to the status quo in two ways:

1. Sociology becomes employed for administrative purposes to control the social organisation but not radically transform it. Owing to the demand for concrete instantiation of concepts, the meaning of concepts becomes explainable only by referring to the particular circumstances in which they may be applied. But in this concentration on the particular instantiation of concepts, the universal conditions which play a role in determining the particular state of affairs, is lost to consciousness. This means that when sociology is used therapeutically to effect changes in unsatisfactory circumstances, the (universal) societal organisation which is responsible for the existence of the particular facts, is rendered immune to criticism, and improvements are confined to modifications on the 'particular' level. Marcuse claims that the dissolution of the general into the particular, which is a direct result of operationalism, is mystifying, because the particular facts are not understood in their true light as "manifestations of a universal state of affairs" (1964: 95); they become falsely "isolated from the truly concrete context which makes the facts and determines their function" (1964: 190). Thus Marcuse claims that the concreteness which operationalism achieves, is a false concreteness which "is the result of a series of abstractions from the real concreteness which is in the universal character

of the case". For Marcuse, the translation of universal concepts into particular instantiations, means that the reality of the universal concept is fallaciously disregarded. As Marcuse puts it:

> Cognitive (universal) concepts go beyond any particular context of facts (in society) - into the processes and conditions on which the respective society rests, and which enter into all particular facts ... cognitive concepts transcend all operational context, but their transcendence is empirical because it renders the facts recognisable as that which they really are (1964: 92).

According to Marcuse, the universal societal whole cannot be translated into "terms with particular objective referents" (1964: 93), but is nevertheless not a 'mythical entity'; it is a real force determining and shaping the particular facts, but at the same time transcending them. Marcuse is thus concerned with the fact that the positivist criterion of meaning leads to the rejection of the social whole as an unreal mythical entity. This concern of Marcuse is echoed in Adorno's claim that "If it (the societal whole) is eliminated from science then the phenomena are attributed to false causes and the dominant ideology regularly profits from this" (1977: 11). This argument of Adorno and Marcuse appears also in Habermas' contention that scientific concepts are inadequate because they cannot grasp the "dependence of each social phenomenon on the totality" (1977: 136).

2. Marcuse claims that sociology also becomes ideologically tied to the status quo by defining social concepts operationally in a manner which legitimates the existing social structure. Marcuse argues that operational concepts close the meaning of terms by linking the terms with a set of unchanging predicates defining the meaning of the terms. The fixed meaning of the terms blocks "the development of (their) content" (1964: 81) and leads to the "acceptance of that which is offered in the form in which it is offered"

(1964: 81). Operational concepts involve a

> telescoping and abridgement of syntax which cuts off development of meaning by creating fixed images which impose themselves with an overwhelming and petrified concreteness (1964: 82).

Instead of allowing the thinker to consider alternative meanings of concepts, operational concepts impose a static meaning on the thinker's consciousness which is passively accepted by the thinker. This abridgement of the meaning of concepts implies that the given facts which are regarded as the concrete meaning of the concept, are unable to be apprehended critically, but are accepted in their givenness. Marcuse uses the example of the study of democracy undertaken by Marvick and Janowits, to explicate the way in which sociological operational concepts are inherently noncritical. Marcuse argues (1974: 115) that Marvick and Janowits define democracy operationally in a manner which allows them to apprehend the given democracy of the United States. Marcuse claims that this operational concept is well equipped to grasp the democracy of the United States at the time of the study, but is unable to recognise this democracy as only one manifestation of the general concept 'democracy': By equating the concept 'democracy' with an operational definition in terms of particular criteria for the application of the concept in a concrete instance, the given democracy is incorrectly identified with democracy itself, and the inadequacies of the particular manifestation of democracy (judged in the light of the concept of democracy itself) are not apprehended. Instead of the particular democracy being criticised in terms of the real meaning of democracy itself, it becomes uncritically accepted. This uncritical acceptance of the facts defined by the operational concept, is for Marcuse ideological both in the sense of serving the interests of preserving the status quo and in the sense of implying a falsity of vision. In order to understand Marcuse's contention that the facts of political activity are not adequately

described but are falsely apprehended in the study of Marvick and Janowits, it is necessary to discuss Marcuse's conception of 'truth':

For Marcuse, any 'true' concept of a thing contains an excess of meaning beyond the meaning given in particular instantiations of the concept. Thus, say, the concept of 'whiteness' contains a meaning which is irreducible to the particular manifestations of 'whiteness' in empirical white things. This Platonic contention of Marcuse is linked to his contention that the universal is real and is in fact more real than its particular manifestations. Marcuse accepts the Platonic idea that "reason establishes an authority and reality which is ... antagonistic to the immediately given facts" (1978: 227), as well as the related Platonic idea that "true being is ideational being ... not being as we experience it in the flux of our empirical practical world" (1978: 227). True being is for Marcuse the Platonic world of 'Forms' of which particular things are only imperfect reflections.

Thus Marcuse claims that insofar as our concepts are bound to empirical experience and are unable to recognize the potentialities which are as yet unrealized in the empirical world, they lead to a false truncation of vision; they lead us to falsely conclude that the immediately given appearance is the reality, and to forget that things in the empirical world have the potentiality to alter into alternative states in accordance with the definition of possibilities contained in their (real) essences. In falsely identifying reality with the empirical world of appearances, and knowledge with experiential knowledge, positivism renders the real tension between actuality and potentiality incapable of comprehension.

As Marcuse accepts the Platonic idea that true being can only be ascribed to the world of Forms, so he accepts the further Platonic idea that 'truth' is a predicate not only of propositions but also of reality. Marcuse rejects the positivist conception of 'truth' as a predicate applying only to propositions. He claims, along with Plato, that the empirical

world can be true or untrue, and is rendered both more true and more real to the extent that it conforms to the ideational world of essences. In Platonic terminology, the 'sensible world' attains reality and truth to the extent that it 'partakes of' the 'intelligible world of Forms'. While a thing in the empirical world is only an imperfect reflection of its corresponding Form, it is only partially real and partially true; its fulfilment of more of the potentialities given in its essence, represents its progress towards reality and truth.

Marcuse accepts this classical conception of truth and draws on Hegel to further elucidate this position. He notes that according to Hegel, reason has the capacity to transcend the visible, empirical world and is able to grasp the 'Notion' of things. Insight into the Notion of things provides knowledge of the "possibilities which are realised and at the same time arrested" in the given empirical reality (1964: 213). It provides knowledge of potentialities which have not yet been actualized in empirical reality; as well as of the "actual conditions ... which stand in the way of things working out their proper nature (by actualising all their potentialities)" (1977: 134). The following passage from Marcuse indicates his appreciation of Hegel's conception of the relation between reason, truth and reality.

> The correct notion makes the nature of an object clear to us. It tells us what the thing is in itself. But while the truth becomes evident to us it also becomes clear that the things 'do not exist in' their truth. Their potentialities are limited by the determinate conditions in which the things exist. Things attain their truth only if they negate their determinate conditions.
> (Marcuse, 1977: 64).

The task of reason in the world is to aid things to 'attain their truth', i.e. to render the world true and real through

the power of a critical consciousness which is able to apprehend the limitation and unreality of existent things:

> The truth he (the thinking subject) envisions is not an object for passive contemplation, but an objective potentiality calling for realisation. The idea of reason implies the freedom to act according to reason. (1977: 255).

Marcuse explicates the implications of the Hegelian concept of truth for sociology: The task of true sociological concepts is not only to reflect the given factual social world but also to comprehend it as irrational to the extent that the potentialities present in man and society are being thwarted in their development. True sociological concepts must show that present social structures and the present modes of behaviour of men in society are not eternal and can be changed through the active power of reason. They must show that "the possibility of utopia is inherent in the technology of advanced industrial societies" (Connerton, 1976: 29) by pointing out that the possibility for the fulfilment of 'latent human needs' in a free and nonexploitative and truly democratic society, is everpresent. Instead of simply reflecting the present status quo, sociological concepts must posit a (utopian) situation in which "the exploitative domination of individuals' unconscious motivations ... for the purposes of increasing the sale of manufactured gadgets ..." (Bender, 1976: 14) has been 'negated'. By positing the negation of the present status quo, sociology will be criticising the social facts in the light of what society and man really are, showing that in the present situation reality and truth have not yet been attained. The aim of critical sociology is to aid in the negation of the conditions which thwart society and man's true development, and to allow reason to fulfil its proper task of "bringing truth into the world" (Marcuse, 1977: 39).

In assuming the task of positing a radically different alternative to the present advanced industrial social organisation,

sociology must embody uptopian fantastic conceptions similar to those appearing in avant garde art. Solomon summarises the Marcusian conception of the role of art: Avant garde art tries to "break the power of facts over the word and to speak a language which is not the language of those who establish, enforce and benefit from the facts" (Solomon, 1974: 523). According to Marcuse the transcendent, fantastic element of sociological concepts will, as in avant garde art, represent the "refusal to eternalise the present and shut off the possibility of a transformed future" (Jay, 1973: 78). Marcuse thus rejects the positivist criterion of meaning for social scientific theories, arguing that true sociological concepts must "contain a strongly imaginative, even utopian strain, which transcends the present limits of reality" (Jay, 1978: 77). Marcuse's stress on the role of fantasy in critical sociological theory, echoes Adorno's arguments concerning the nature and importance of fantasy:

> Fantasy is no less of a burden to a science than to art ... Fantasy implies an intellectual operation rather than free invention. But this is exactly what is prevented by the positivist theory of the so-called meaning criterion. (1977 51).

THE VERIFIABILITY OF CRITICAL SOCIOLOGICAL THEORY

Having offered Marcuse's conception of truth, and specifically of sociological truth, I shall now offer his account of how the truth of sociological theories becomes verified. Marcuse agrees with the positivists that any theory which claims to be true must in principle be capable of validation. But he claims (against the positivists) that the possible experience which establishes the verifiability of a theory need not be co-extensive with the given empirical world; it can refer to future possible factual occurrences. It is only in the course of history that the facts which constitute the material against which critical theory can be validated, may become realized. Yet this does not render critical

theory unverifiable or meaningless; it merely means that the "range of verifiability ... (of critical theory) grows in the course of history" (1964: 230). It is only through the historical process that the facts against which critical theory can be checked, may be brought about. But the bringing about of the facts which will serve as the testing ground of the theory, is in turn dependent on the active power of individuals to shape and organise their world in accordance with their theoretical insight. Thus the actual validation of the theory in the light of the relevant facts, is dependent on the theory's power to compel individuals towards fulfilling the historical possibilities outlined by the theory.

Marcuse states the relation between critical theory and the historical process in the following way:

> Marxism is not a 'closed system of thought'. Its objectivity or general validity is that of history in which it is itself an active force and in which it develops - without surrendering its conceptual basis. This basis is the dialectical analysis from which results the human - not the natural! - necessity to change the society (1976: 93).

For Marcuse, critical theory is not a closed system of thought because it <u>is</u> capable of verification. But whether or not human beings will organise the practice to which the truth claims of critical theory are linked, is an open question, for the organisation of this practise is not determined by objective 'iron laws.'

The implementation of a rational society is not an inevitable process: Although the present structure of society contains immanent possibilities, "the liberation of the possibilities immanent in the existing order requires 'man's historical action to fulfil them'" (Held, 1980: 239). Marcuse argues that the objective truth of critical theory

is not dependent on the correct historical practise being implemented; only the actual validation or checking of the theory is dependent on this historical practise. Marcuse argues that it is the task of man to implement the theory correctly in bringing about a rational society, but if he fails to fulfil this task adequately, this does not render the theory inadequate. The truth of the theory is independent of whether or not man's historical practise actually results in the theory being realised and verified (in the sense that the potentialities grasped by the theory become fulfilled.)

Insofar as the theory reveals the conditions in society whose negation would result in real potentialities in man and society becoming fulfilled, it is true. In terms of these criteria, Marxian theory is true insofar as it reveals the negative conditions in society whose negation implies a liberation of the possibilities inherent in the society: Marxism reveals that the negation of the negation represents a positive movement towards rationality. It reveals that the facts in present capitalistic societies are negative facts which restrict real potentialities in man and society and which in turn need to be negated in order that the potentialities will be released. For Marx:

> The very fact is more than a mere fact; it is a negation and restriction of real possibilities. Wage labour is a fact but at the same time it is a restraint on free work that might satisfy human needs. Private property is a fact, but at the same time it is a negation of man's collective appropriation of nature.
> (Marcuse, quoted in Held, 1980: 238)

Thus although Marxian theory has not resulted in the appropriate historical practise which would prove its validity, it is nevertheless true: "Marxian theory was already true at the time of the communist manifesto". (Marcuse, 1964: 223). Likewise Marcuse argues that his dialectical theory can claim truth-value because it

"defines historical possibilities, even necessities", although "at present the practise gives no response (to the theory)" (Marcuse, 1964: 253).

A Note on Ideology

Because Marcuse believes that 'the truth' is capable of being apprehended by dialectical critical thought, he is able to contrast (true) critical social theory with ideological social science. Critical social theory is able to grasp the truth about reality, while empirical social science is built up of ideological concepts which are closed to reality and which thus lead to a falsity of vision. Marcuse conceives of ideology as 'hypnotic images' which 'move in tautologies' (1964: 53) and are unresponsive to reality. He sees ideology as a closed language which petrifies the structure of consciousness of the ideologist in a manner which renders the status quo immune to criticism. Such a language-structure is false because it is a petrified structure which evokes frozen predicates to describe the concepts of its sentences, which thus become mere ritual formulae rather than being reflective of reality. In Marcuse's view, a social science which works with operational definitions can be characterised as ideological for it is in principle incapable of reflecting true (essential) being and is inherently geared towards the justification of the present social structure. Critical, dialectical thought on the other hand, may claim truth-value because it is able to apprehend the structure of reality correctly (i.e. as a process of fulfilment of essential potentialities) and because it is inherently geared towards overthrowing present societal structures.

MARCUSE'S CRITIQUE OF THE (POSITIVIST) VALUE-FREE CONCEPTION OF SCIENCE

Like Habermas, Marcuse argues that empirical social science,

by virtue of its methodology, is "tied to the ends and values established by this (scientific) practise" and is thus not pure or value-free (Marcuse, 1978: 231). Futhermore, he argues, as does Habermas, that empirical science is unable to recognise the prescientific and nonscientific conditions and foundations which are constitutive of scientific truth and validity; it is unable to recognise that science is impure and that it springs out of the purpose of "subjecting nature to the ever more exact foresight in mastering and using nature". (1978: 231). Marcuse argues that science is grounded in a pregiven set of goals of which it is unaware but which nevertheless render it value-laden in favour of "leaving the Lebenswelt in its essential structure in its own concrete causality unchanged" (Husserl, quoted in Marcuse, 1978: 231). Because of science's essential relation to the given empirical reality to which it is tied, and which it is incapable of transcending, its 'famous neutrality' is illusory (1978: 232). Because science succumbs to the illusion that it is value-neutral, it mistakenly believes that it discovers true reality through its method. By virtue of this mistaken belief, "scientific experience is false, incomplete inasmuch as it experiences as objective ... what in reality is subject-object, objectivation of subjectivity". (1978: 234). Having attacked the empirical sciences' claims of value neutrality, Marcuse offers his own alternative conception of the relation between facts and values. Contrary to the positivists he argues that if reality is to be grasped, the descriptive and prescriptive moments of language must not be separated. In order to demonstrate his position concerning the relation between the descriptive and prescriptive elements of language, Marcuse uses the example of the statment 'Man is free'. He argues that in this statement the descriptive copula 'is', at the same time embodies an imperative prescriptive element suggesting that man is not yet free but ought to become so. He argues that this type of proposition in which the predicate 'is' implies an 'ought',

embodies a two-dimensional thought pattern, and that this type of thought pattern is better able to grasp reality. This is because reality is not to be identified with the immediately given empirical world, but with the ideational notions in the light of which the empirical world can be judged: "Propositions which define reality affirm as true something which is not (immediately) the case" (1964: 131). Propositions which represent reality, are able to recognise immediately given things as "a distortion, limitation or even denial of their nature" by judging these things in the light of what they really are (1964: 123). The dialectical definition (which embodies two-dimensional thought) "defines the movement of things from that which they are not to that which they (really) are" (1964: 141). Dialectical thought patterns grasp the 'ontological tension' between 'is' and 'ought' by expressing the fact that things as they presently exist do not conform with what they ought to be and really are. The attempt to separate the 'is' and 'ought' elements of speech leads to one-dimensional thought, which is unable to grasp the 'ontological tension' whereby existent things move in a direction of conformity with their notions and eventually become identical therewith.

The conflation of the 'is' and 'ought' elements of speech in two-dimensional language structures, means that such language structures will inevitably embody a value-commitment - the commitment in favour of aiding existent things to achieve conformity with their Notions. But this value-commitment is not merely a subjective wish to achieve certain (ultimately) irrational) goals. The value-commitment defined by a two-dimensional language structure, is a commitment towards aiding the fulfilment of the inherent goodness given in reality. Adorno expresses this type of value-commitment clearly:

> The judgment upon an entity ... is always simultaneously prescribed by the entity and is not exhausted in subjectively irrational decision as it is in Weber's conception. Every judgment is ... a judgment of the entity upon itself; the

> judgment recalls the fragmentarines of the entity ... The whole problem of value is accordingly falsely posed. (1977: 116).

The Marcusian conception of value-laden knowledge (which is consistent with Adorno's conception) springs from a conception of goodness which is similar to the Platonic conception: For Plato, the goodness of a thing is intrinsically connected with the fulfilment of its 'proper function' as defined by its essence. A thing is good to the extent that it realises itself fully, fulfilling all the potentialities laid out in its essential Form. The goodness or badness of sensible things is thus measurable in terms of their agreement with, and degree of participation in, the world of Forms. It is because Plato has defined goodness in this way that he is able to claim that 'The Good' is the principle both of reality and of knowledge: Insofar as a thing is good and fulfills the potentialities given in its Form, it is real (because only the Forms are wholly real), and knowledge of it is possible (because only the Forms can be known).

Marcuse accepts this Platonic conception of goodness, claiming that a thing is good to the extent that it is what it really is, and that knowledge of the goodness of a thing is inseparably tied to knowedge of what the thing really is. It is in the light of this conception of the relation between goodness, reality and knowledge that we can make sense of Marcuse's claim that only value-laden knowledge can allow us access to reality and that our value commitments are not arbitrary but given by reality.

Implications of the Relation between Knowledge and Goodness for Sociology

Having argued (1977: 66) that "all immediate forms of existence - in nature and history - are 'bad'" because

they exist in a state which does not fully express their potentialities, Marcuse argues that sociology must be value-laden in the sense of criticising the badness of contemporary advanced industrial societies. Marcuse here is in agreement with Adorno that "the aim of sociology, if it is to be more than a mere technique, can only crystallise at all around a conception of the just society" (Adorno, 1977: 118). The validating idea of sociological reason must be the "telos of man as man, the realisation of humanitas" (Marcuse, 1978: 235). True sociological knowledge is knowledge that fosters change in the direction of a good society in which "the reality of freedom as the self-determination of liberated humanity in its common struggle with nature, will be achieved" (Marcuse, quoted in Jay, 1973: 59). The aim of sociology must be to eradicate the badness in present social structures, by showing that the true needs and wants of man are not being fulfilled within present social structures and that the essence of both man and society is currently being stifled. Sociology must show that men and society are more than what they are now in their present appearance, by projecting the possibility of a future good society in which men will be united as rational human beings, and will use the productive forces "for the general satisfaction of all individuals" (Marcuse, 1977: 317). In this good society there will be a

> Reorientation of the productive process towards the needs and wants of the whole society, the shortening of the working day and the active participation of the individuals in the administration of the whole
> (Marcuse, quoted in Jay, 1973: 59).

Furthermore, in this good society, the true relation between the individual and society will be established; instead of society dominating the individual as a blind uncontrollable force, imposing false needs and attitudes on him from without, the needs and wants of the individual will spring from his personal 'inner dimension', and will have no 'societal content' (Marcuse, 1964: 22). The aim of sociology is

to aid in the creation of the good society in which everybody's true wants and needs can be satisfied and in which true freedom and democracy reign.

AN APPRAISAL OF MARCUSE'S POSITION

MARCUSE'S ATTACK ON POSITIVIST OPERATIONALISM

In appraising Marcuse's attack on the positivist criterion of meaningful concepts, I will firstly argue that although the positivist criterion of meaning is based on a dubious assumption, Marcuse's alternative criterion of meaning is based on an equally dubious assumption. I will show to what extent Marcuse's criticisms of positivist empiricism are cogent; but I will also indicate how Marcuse's alternative view can be challenged in the light of the (viable) conventionalist view. The first part of my argument thus takes the form of indicating how conventionalism would define concepts in a way that transcends both positivism and Marcusianism. The point here is to indicate that a viable alternative to positivist empiricism and to the Marcusian stance exists. (In a later development of my argument - when I discuss the need for 'dialectical' concepts - I will demonstrate the superiority of the conventionalist stance in the light of the dangerous absolutism of the Marcusian position.)

Cogency of Marcuse's Critique of Positivist Operationalism

In Chapter 2 I used the conventionalist standpoint to demonstrate that the positivist identification of 'reality' with the world which operational concepts grasp, is

based on the unjustified assumption that the objective world can be grasped through creating concepts which are definable in terms of a given set of observational experience.[1] The positivist assumption that such concepts can in principle grasp reality (that is, the assumption that such concepts will reflect reality if the operational definition is correct), is in turn linked to the assumption that human consciousness is confronted with a pre-arranged and ordered world which merely needs to be reflected in correct language structures. The conventionalists question the assumption that (correct) operational concepts allow reality to be grasped, arguing that every concept contains a formal element which is (as Marcuse notes) irreducible to observable data. The conventionalists thus agree with Marcuse that the assumption that (objective) reality can be grasped through operational concepts reducible to sense data, is a dubious assumption. Futhermore, conventionalists argue that to attribute ontological status to the reality which concepts 'grasp', is to forget that this reality owes its being to human needs and purposes, and is not independent thereof. Conventionalists would maintain that Marcuse has correctly noted that the reality which scientific operational concepts grasp is not merely objective, but is the objectivation of subjectivity, for it is human subjective purposes which are responsible for the creation of the objective world of things. Thus conventionalists would agree with Marcuse that the positivist criterion of meaning is inadequate because it attributes independent ontological status to that which relies on human subjects for existence.

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1. See Chapter 2, page 54-58 where I discussed the conventionalist attack on positivist operationalism, showing that for conventionalists the formal elements of concepts render concepts more than mere reflections of objective reality: The formal elements of concepts are irreducible to recognitors (i.e. material elements) of concepts and are in fact responsible for allowing the material elements to be classed under a particular category.

Conventionalists would also agree that the positivist criterion of meaning is inherently conservative and does not account for, or allow, the fruitful development of the meaning of concepts.[2]

(When I indicate to what extent Marcuse's critique of positivism is consistent with conventionalism, I am arguing that his critique is cogent insofar as it penetrates the unjustifiably taken-for-granted assumptions of positivism to which conventionalism draws attention; I am not maintaining that the conventionalist position is absolutely 'correct'.)

The Conventionalist Alternative to Marcuse's Non-Operationalism

Having shown to what extent Marcuse's critique of positivist operationalism is cogent, I will now indicate how his position can be challenged in the light of conventionalism. Note that at this point in my argument all I am trying to show is that conventionalism poses as a viable alternative to Marcuse; I am not (yet) trying to show why it is superior.

In outlining his 'non-operationalist' position, Marcuse argues that a concrete particular does not fully embody the meaning of an abstract concept, because there is always "more in the abstract noun" than in its concrete manifestation (1964: 215). Conventionalists on the other hand would argue that although the formal element of concepts

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2. See my discussion in Chapter 3, page 114-117 where conventionalist future-orientedness is opposed to positivist conservatism.

is not reducible to observable data, this does not imply that a particular instance of a concept necessarily 'falls short of' the concept itself; in other words it does not imply that an 'operational' definition of the concept is invalid. Thus Kovesi would argue that although the formal element of the concept, say, 'democracy', is not reducible to the recognitors of the concept 'democracy' (i.e. to the relevant features which allow a polity to be classed as a democracy), this does not imply that particular democracies necessarily fail to embody 'democracy itself'. Rather Kovesi would argue that any particular democracy embodies 'democracy itself' if it possesses all the relevant features which the community considers necessary for classifying the polity under the concept 'democracy'. The particular polity may embody 'democracy' fully, because 'democracy' is simply a formal rule developed by the community which states that any polity which possesses the relevant features, is to be classified under the concept 'democracy'. (Later when discussing the difference between scientific and moral concepts, I will show that the 'community' deciding on the relevant recognitors connected with the concept 'democracy', may be the scientific or moral community, and that the decision of the community as to what are the relevant recognitors will be dependent on the purpose of the concept within the scientific or moral enterprise).

Conventionalists would regard Marcuse's assumption that universal concepts necessarily transcend their instantiation in particular instances, and the attendent assumption that universals are real, as unnecessary and dubious assumptions. They would argue that Marcuse's claim that universal concepts should be attributed ontological status while particular manifestations of the concepts should only be regarded as partially real, is based on a misunderstanding of the nature of concepts and of conceptual knowledge.

Conventionalists claim that universal concepts are not more real than their particular manifestations, and that

neither universal concepts nor their concrete manifestations can be said to have ontological status. Instead of regarding universal concepts as existing for human consciousness to apprehend and know, conventionalists argue that concepts are heuristic devices developed by human subjects engaging in purposeful enterprises, and that they owe their 'being' to these enterprises.[3] Futhermore, conventionalists would argue that if 'reality' is to be attributed to either universals or particulars, it must be attributed (though only metaphorically) to particulars and not (as Marcuse contends) to universals. This is because universal concepts of things only 'exist' in the fact that they allow things to be classified under certain conceptual categories. Thus, say 'tableness' only exists in the fact that it is a formal element which qualifies a particular set of recognitors to be called a table. Particular tables can be attributed 'reality' in the sense that, given our classification of the recognitors, we do become confronted with 'existent' tables. But 'tableness' itself has no 'being' apart from its 'being' in particular tables, i.e. apart from the fact that it allows these tables to be classified as such.

In order to show why I believe the conventionalist position poses as a viable alternative to Marcusian assumptions concerning the 'reality' of universals, I must examine the origin of the Platonic ontology upon which Marcuse draws when substantiating his position. (My attempt will be to expose the dubious nature of the Platonic ontological assumptions, by noting how they are based on a dubious epistomology):

Plato's attribution of ontological status to the Forms, is connected to his contention that knowledge is by definition

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3. Conventionalists would disagree with Husserl that the intentionality of a transcendental subject is responsible for the creation of a reality of essences which can be designated as 'true being'. They would argue that the intentionality' of the particular community engaging in a purposeful enterprise, is the only yardstick for the measurement of 'reality', and that there is no reason to consider this 'reality' as a 'true being' to be apprehended and grasped in its 'givenness'.

'infallible' and must be of 'unique unchanging objects' (Plato, 1941: 180). Knowledge for Plato must be of a reality which is immutable. The object of knowledge cannot be the sensible world (which is in constant flux). Plato thus looks for something beyond the sensible world for the object of knowledge and finds it in the eternal Forms.

Plato distinguishes 'knowledge' from 'belief', on the grounds that knowledge is of the permanent reality of Forms, and is thus infallible; while belief is of the changing sensible world, and is thus indefinite and imprecise. But Plato's claim that knowledge and belief have different objects, is based on the assumptions that we can have infallible knowledge and that the object of such certain knowledge does exist. Both of these assumptions of Plato can be questioned:

Instead of regarding knowledge as by definition infallible, one could rather argue that it is similar to belief and has the same object as belief: One could argue that the only difference between knowledge and belief is that when one says that one knows something, one commits oneself to defending ones knowledge-claim, while saying that one believes something, does not entail such a commitment. One could argue that knowledge and belief have the same object, and that this object is ultimately the world of sense experience which is categorized by human beings in the light of particular purposes. In arguing that both knowledge and belief are of the reality which human beings create out of the world of sense data by imposing conceptual categories thereon, one is maintaining that the object of both knowledge and belief is <u>not</u> immutable. This is because the conceptual categories which constitute the reality towards which belief and knowledge are directed, are not permanent, but are subject to change due to the inevitable development of the enterprises within which reality is constituted. In the light of this alternative to the Platonic and Marcusian conception of universals as real and as the object of knowledge, the

Platonic ontological and epistemological stance becomes exposed as dubious and unnecessary.[4]

THE NEED FOR DIALECTICAL CONCEPTS

The Process of Becoming

I will now examine Marcuse's claim that only dialectical concepts are able to examine the dialectical process of 'becoming' things. My attempt here will be to show not only that (conventionalist) operational concepts can grasp the process of becoming, but also to show why these concepts are superior to those of Marcuse.

I will first concentrate on showing that we do not require special 'dialectical' concepts in order to grasp the movement of things through various stages of development: Following the conventionalist view of concepts, I argue (against Marcuse) that it is not because a concept contains an excess of meaning (which transcends the particular states in which things exist) that it becomes capable of capturing movement: I argue that the concept of, say, a plant is able to capture the movement of particular plants through various stages of development, not because it is dialectical and nonoperational in the Marcusian sense, but simply because the relevant features (recognitors) which are connected with

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4. It should be noted that I am only claiming similarity between Plato and Marcuse's ontology in the sense that both Plato and Marcuse attribute ontological status to 'universals'. The content of these universals differs for Plato and Marcuse: Plato attributes objectivity to 'The Forms' ; while Marcuse has a subject-object ontology in that he sees the (objective) world as containing subjective elements. Marcuse's ontology is similar to Habermas' and can be characterised - like Habermas' - as nonobjectivist. Marcuse's epistemological stance is, however, (like Habermas') an objectivist one and in this way echoes the Platonic epistemology.

the formal concept 'plant' include a consideration of the manner of growth of something which is to be classified as a plant. It is not because the abstract concept 'plant' embodies more than particular manifestations of 'planthood', that the growth of plants is graspable. Furthermore, I argue that particular plants can be said to fully embody 'planthood' to the extent that they possess all the relevant features which qualify particular plants to be classified as such. Thus I argue against Marcuse that 'nondialectical' concepts - defined as concepts whose instances may fully embody the 'universal' meaning of the concept - are able to capture growth. I do not accept the Marcusian claim that operational concepts contain an inherent truncation of vision by not allowing the 'becoming' of things to be grasped. (Although I do agree with Marcuse that positive operational concepts are more conservative than conventionalist operational concepts, whose meaning content is open to change with the development of human ideals.)

Having demonstrated that we do not require dialectical concepts to grasp the process of becoming, I wish secondly to argue that Marcuse's assumption that all reality is characterised by a teleological process of becoming, is unjustified: Marcuse accepts the Platonic view that all things have a proper function, the fulfilment of which represents the realisation of their essential nature. This teleological view according to which all things have a 'proper end' which is given in their essences, is based on the assumption that these essences have ontological status. If however we reject the assumption that essences are real, and rather accept the conventionalist view that essences are merely class terms developed by human subjects to work a manageable structure into the world of raw data, then we must in turn reject the Platonic teleological view. Instead of regarding all objects in the world as having definite functions, the fulfilment of which represents their progress towards 'reality', we can rather argue that things only have 'proper functions' in the following sense: The relevant

features (recognitors) which the community has decided qualifies an object to be classified under a certain concept - i.e. the defining characteristics of the class which the concept names - can be regarded as stating the function of the object. The recognitors define the 'proper function' of objects to the extent that unless the objects possess these features, they cannot be classified under the particular concept. For class terms naming objects which are functional for human beings, this definition of the 'proper function' of objects is easily applicable. The relevant features of say, a kettle - that it is made of certain specific materials, that it has an element, etc. - are considered relevant, because kettles properly must perform the function of boiling water, and thus must possess the characteristics enabling this performance in order to be named as kettles. It is not the ontological essence 'kettleness' which defines the 'proper end' of a kettle for the fulfilment of which particular kettles exist; it is the fact that human beings have decided that an object which possesses these relevant features, is fulfilling the 'end' given in this class name and thus may be called a kettle. For objects which are not 'functional' in the sense of being usable by human beings, the 'proper function' of the object can still be seen as the 'fulfilment' or rather 'possession of' the relevant features necessary for its being named by the class term. Thus, say, the term 'democracy' names an object which fulfils its 'proper function' to the extent that it possesses the features which the community has decided qualify a particular polity to be called a democracy. The 'proper function' of 'democracy' is not given by a universal essence requiring that particular democracies must move in a direction of fulfilling their proper nature. Rather we can say that a particular democracy only must fulfil its 'proper function' in the sense that unless it possesses the features which are given in the class term 'democracy', it will not qualify to be called a democracy.

But this alternative view of the nature of class terms, means that we are unbound to positing that all things are in a

process of movement towards the fulfilment of their 'proper nature'. Rather we can claim that things have no 'desire' to move in any direction, for the only 'progress' that they make by moving in the direction of satisfying the defining characteristics of a class, is that they then qualify to be named under that class term.

The advantage of accepting the conventionalist view of the 'proper end' of things, is that it escapes the dangerous absolutism inherent in the Marcusian stance: Marcuse's (and Plato's) claims to know the direction in which things 'desire' to move, amount to unjustified and unprovable absolute claims about the nature of reality. These absolute claims are dangerous precisely because they are unprovable and yet are presented as correct. Because the proponents of this teleological position believe that they possess certain knowledge of reality, they are unwilling and/or unable to negotiate or compromise their conceptions when faced with alternative conceptions. The negotiation of a human reality in which men can live together, becomes subverted and stifled as those possessing 'the (absolute) truth' attempt (in vain) to prove the validity of their stance.

It is because the conventionalist view poses as a response to the problem of unjustified absolutism which stifles human communication, that I regard it as a compelling alternative to the Marcusian position: Instead of rooting the 'proper ends' of things in one person's or group's perception of these ends, conventionalism inherently allows for human negotiation in establishing the definition of 'proper ends'.

It should be noted that conventionalism does <u>not</u> fall into the position which Marcuse laments - of collapsing potentiality and actuality - by its rejecting the teleological conception of the universe. Conventionalists' recognition of 'potentiality', lies in their claim that the meaning of concepts is continually changing so as to embrace fresh empirical circumstances - neither concepts nor reality are

regarded as static 'actualities' or 'givens'.

The Evaluative Function of Language

I will now consider Marcuse's claim that without dialectical concepts the evaluative role of language becomes suffocated. In doing so, I will firstly examine the conventionalist account of the cases in which a 'universal' concept contains more than its particular manifestations. These are the cases in which, using Kovesi's language, particular concrete objects can be regarded as possessing some of the relevant recognitors but not all: Kovesi notes that these cases arise when "the description (of the concept) functions like a standard to which particulars approximate"(1967: 155). He also notes that in these cases particular things can be evaluated in the light of their conceptual description. This point of Kovesi concerning the evaluative fucntion of these descriptive concepts, has important implications in sociology, where ideal-typical concepts are widely used. Sociological ideal-typical concepts are 'nondialectical' descriptions; nevertheless they may "function like a standard to which particulars approximate", and can thus be used to evaluate particular concrete things in the light of the definition of the universal concept. This implies that the evaluative function of language may be preserved in sociology even though the language is not dialectical in the Marcusian sense of prescribing the dialectical movement of things towards fulfilling their universal essences. Ideal-typical concepts in sociology serve to evaluate particulars in the sense that particulars can be regarded as good or better instances of universal concepts. (Later when discussing the difference between moral and scientific concepts I will show, however, that the evaluation of a particular in the light of a universal concept and the deeming of it as a good instance of the universal, is not the same as valuing it morally. I will show that although we may evaluate particulars in the light of universal concepts, this is not the same as

prescribing their movement towards the full embodiment of the universal concepts.)

Futhermore, apart from this preservation of the evaluative function of sociological language through the use of ideal-typical concepts, there is another way in which concepts can become evaluative without being dialectical . This is by virtue of our being able to evaluate particulars not only in the light of their own universal concept, but also in the light of other concepts. As Kovesi puts it:

> We can evaluate even pebbles by saying that they are good as ballast or good for cobble-stones. Here we do not evaluate them in so far as they are pebbles but as instances of ballast or paving material. (1967: 153)

This discussion of Kovesi's concerning evaluation, again has implications for sociological nondialectical concepts: The fact that sociological concepts are nondialectical does not imply that the evaluative role of sociological language is lost. By virtue of the fact that we can always evaluate particulars under a description of another concept, we will always be able to evaluate. Thus even if we define democracy operationally in terms of certain relevant features which are present in United States democracy, this does not imply that we are unable to evaluate the particular United States democracy in terms of the concept of a different political organisation. We can still judge the present democracy of the United States as inadequate, by saying that it is not a good instance of a different type of political organisation as defined by a different conceptual category. The recognitors connected with this different conceptual category describing a different polity, will include features that are not present in United States democracy (or for that matter in any existent democracy), so that present United States democracy can be judged as a bad instance of this different polity. (The conceptual category defining the different polity may still be operational or nondialectical in the sense that it is

defined by the recognitors which, if fully present, would qualify a particular polity to be called under the class name).

Thus contrary to Marcuse's claims, I have shown that the evaluative function of (sociological) language is not lost through the proliferation of operational concepts.

Before concluding this section, I must note that as with the evaluation of a particular under its own universal concept, so with the evaluation of a particular under a different universal concept, the evaluation does not imply a moral prescription. When discussing the difference between moral and scientific concepts, I will further elaborate on the difference between evaluation and moral prescription, and indicate the dangers of equating evaluation with valuation.

Grasping the Social Totality

Marcuse claims that nondialectical empirical concepts (which have no excess of meaning beyond particular concrete facts) are unable to grasp the "process and conditions on which the ... society rests" (1964: 92) and are unable to recognise the 'social totality' as a real entity. He argues that sociological operationalism has the therapeutic consequence of serving administrative interests. It reduces problems connected with the social totality, to particular problematic situations which can be remedied without tampering with the 'social totality'; i.e. it reduces problems connected with 'universal' social conditions, to the 'particular' level, and thus effects changes in the particular without considering the universal conditions which are responsible for the particular problems. Marcuse sees this confinement of improvements to the 'particular' level, as a direct result of sociological operationalism. I argue, however, that operationalism does not necessarily imply a

truncation of vision in which the universal social conditions which are responsible for the particular facts, are unable to be apprehended. Rather I suggest that the particular conditions in, say, a particular factory, could be used to point to the universal condition that, say, wages are too low in society, and thus may become linked with a concern with altering the essential structures of society. The operational concept need not result in a dissolution of the 'general' into the 'particular', for sociologists may realise that the concrete circumstances captured by the operational definition, are an instance of a general state of affairs. I would argue that the factor which influences sociologists to effect 'particular' improvements, is the fact that sociologists serve administrator-clients who require specific utility-value out of their research. I argue that empirical (operational) concepts are not intrinisically linked to administrative purposes. When discussing particular research projects, I will further elaborate on this contention, demonstrating how conventionalist operational concepts may involve a concern with the social 'totality'.

CRITICISMS OF MARCUSE'S CONCEPTION OF THE VERIFIABILITY OF CRITICAL THEORY

Marcuse claims that the truth of critical sociological theory can be tested through ascertaining its practical relevance in the historical process. The truth of the theory will be checked when the theory serves to release the potentialities immanent in society and in man. The truth of critical sociological theory will become apparent when a true, good and just society which is directed towards the general satisfaction of individuals' true needs and wants, is established.

The problem with Marcuse's contention that critical theory can be validated in the historical condition wherein man's

true needs and wants are satisfied, is that it is based on the assumption that it is possible to ascertain the truth- and falsity-content of human needs and wants. Only if it is possible to distinguish true from false needs in the manner which Marcuse suggests, will critical theory indeed be objectively verifiable with reference to the historical process. It is Marcuse's distinguishing criterion between true and false needs which I now wish to question:

Marcuse distinguishes true from false needs on the basis of their 'societal content'. He argues that false needs "have a societal content and function which are determined by external powers over which the individual has no control" (1964: 22). False needs are those arising out of the imposition by society on the individual's consciousness so that his 'inner dimension' is 'whittled down' and he becomes a fully social being. True needs, by contrast, are those needs which spring from the individual's personal 'inner dimension' and which are thus wholly 'his own'. Marcuse regards man as being 'himself' and as fulfilling his own needs and wants when he is not subject to any social control of his consciousness.

Marcuse's conception of the distinguishing criterion between true and false needs, is based on a conception of man as essentially free and as thus being restrained by external social powers which encroach on his consciousness and instil needs and wants into him. To the extent that man's consciousness is being moulded by socialisation processes, he is being repressed and prevented from realising his true human nature. According to Marcuse, individuals' true needs and wants will manifest when individuals are free from societal influences which invade their consciousness: "The question of what are true and false needs must be answered by the individuals themselves, ... when they are free to give their own answer " (1964: 22).

In order to criticise Marcuse's conception of man as

essentially free from the social control of his consciousness, and as only truly happy when he creates and pursues ends which spring from his inner dimension', I will draw on the alternative view of man offered by Maurice Natanson and Peter Berger.

Natanson argues that man is partially a social self (a 'me' in the words of G.H. Mead) who needs to identify himself as a 'me' in order to operate in the world, and who acts partially in accordance with the dictates of the 'me'. Natanson would agree with O'Neill that the man without qualities (that is, the man who does not see himself as a 'me' with definable characteristics related to his social role), "lives in a world in which people are unable to connect with their own feelings and identity" (1972: 17). Natanson would contest Marcuse's contention that man's true happiness lies in a state in which man is free from the social determination of his needs and attitudes. Natanson claims that rather than the typified social 'me' being necessarily restrictive of human happiness and development, it is an essential part of human nature: Man's 'naïve attitude consciousness' which allows him to gear himself in a social world upon which he bestows taken-for-granted reality, is a typifying consciousness which requires that man see himself as a typified social 'me'. Natanson argues that man's typifying consciousness is not necessarily destructive of human freedom, but may become a liberating force if it allows the 'I' to manifest. The 'I' is the aspect of man which is the source of innovatory action and whose existence is announced when man "lashes into a role with individuality" (Natanson, 1970: 66). Natanson suggests that on a pre-phenomenal, preconscious level we can experience ourselves in our uniqueness as 'I's' and that it is this nontypifying self-awareness that allows us to escape an alienated condition in which our activities have congealed into mere routine expectancy. Natanson argues that at any particular moment, in a non-alienated state, man is both a social self acting in terms of internalised role prescriptions,

and an individual self, moving beyond the institutional framework of society.

Natanson's alternative view of man - which allows us to place in doubt Marcuse's contention that external social forces are a repressive force on man's potentialities - is similar to Peter Berger's view of man, and of the relation between man and society: For Berger the true relation between society and the individual is a dialectical relation in which society both produces, and is produced by, man. Society is a product of man because it is constituted as a result of men's externalising their meanings in social institutions. Man is a product of society to the extent that he internalises the social world that he has co-produced with this fellowman. Berger argues that the condition of alienation represents a distortion of the relation between man and society, as man becomes wholly a social product. In this condition of alienation, the moment of externalisation is suspended, and the process of externalisation is smothered by that of internalisation.

Berger's conception of an authentic non-alienated existence, is comparable with Natanson's in that both agree that such an existence does not require that all man's ends spring from his personal inner core. All that it requires is that man retains the capacity to 'pour out' a measure of subjective individuality into the world; all that it requires is that man does not fully identify himself with his social role to the extent that his individual 'I' becomes incapable of asserting itself. For Berger, as for Natanson, a human existence in which man realises his 'nature', is one in which man is both actor and acted upon, so that his actions will embody a measure of conformity to social roles but also an expression of individual spontaneity.

The view of man expressed by Natanson and Berger, allows us to question the Marcusian distinction between true and false

needs. If their view is correct, then we cannot justifiably define as 'false' those needs which have a societal content, for these needs are not restrictive of, but characteristic of, human development. Furthermore, the possibility of man's living in a state where his action is wholly ungoverned by social norms and reified roles, may be an ideal which is not open to man. The only possible authentic state of existence achievable by man, may be one in which his needs are at least partially social. But this implies that the validating conditions for critical theory - which are the conditions in which men are free to 'give their own answer' concerning the truth of critical theory - may never be realisable. Just as the suitable conditions as defined by Habermas for the checking of the truth of critical theory, may be in principle unobtainable, so too may be the suitable conditions as defined by Marcuse. Marcuse argues that 'time will tell' whether the suitable conditions for the testing of critical theory are in principle realisable, and that when man is free from social domination, time will have proved that critical theory was indeed verifiable. But the problem remains that Natanson and Berger's view of man renders the distinction between true and false needs ambiguous; the truth- or falsity-content of needs will thus never simply be self-evident to the observer, for the question will always be possible as to whether the given needs really are springing from an individual core which is wholly independent of 'societal content'.

The only way for Marcuse to settle the question of whether any needs are really true or false, will ultimately be to resort to dogmatic claims; he will never be able to prove 'objectively' that the needs are true or false: Natanson and Berger's view of man - whether correct or not - renders the Marcusian definition of true and false needs ambiguous, because it renders problematic the question of how needs which are free of societal content are to be recognised. This view of man thus implies that any attempt to interpret

any given needs in the historical future as true or false, will be illegitimate and unjustifiable. Marcuse's claim that critical theory will be 'objectively' verifiable in the historical future, is based on the unjustifiable assumption that the truth- or falsity-content of needs is 'objectively' establishable.

CRITICISMS OF MARCUSE'S CONCEPTION OF TRUTH AND IDEOLOGY

My criticism of Marcuse's contention that critical sociology's truth-claims can be validated with reference to the historical process, leads to a criticism of Marcuse's conception of ideology. Marcuse claims that critical sociological theory is not ideological, because it is not a closed, petrified system of thought which 'moves in tautologies' as does traditional sociological theory: Critical sociological theory is able to apprehend reality; it does not close the meaning of its concepts and render them unresponsive to the movement of reality. The fact that critical sociological theory is able to apprehend the truth and is not ideological, will be proved with the advancement of the historical process. Marcuse's distinction between truth and falsehood is linked to his belief that critical sociological theory is in principle verifiable with reference to future factual conditions. But I have shown that the claim that critical sociological theory is absolutely verifiable, rests on the further claim that any given needs of man are objectively true or false. This latter claim is never provable (not even in the historical future) and is suspect as long as a Natanson- or Berger-type view of man is entertained. Given that there is no reason to accept Marcuse's conception of the essence of man as free from societal 'constraint', there is also no reason to accept Marcuse's account of the distinction between sociological truth and falsehood.

My elaboration and critique of Marcuse's account of 'truth', leads me to offer the same alternative suggestions offered when discussing

Habermas, viz.: I suggest - in keeping with conventionalism - that the 'truth' about social reality should be regarded as that 'truth' which the scientific or moral community constitutes in accordance with the aims of the respective enterprises. (When discussing the fact/value distinction I will show why I believe the scientific (natural or social) enterprises are separate from the moral enterprise). Hare's discussion (1981) concerning the process of consensual negotiation (which I quoted when criticising Habermas), offers a picture of how an agreed upon 'reality' may become established through a process of negotiation in which all parties attempt to understand, but at the same time surpass, the competing perspectives. I suggest that the process of transcending the competing perspectival visions, represents a process of constituting 'the truth'. This definition of 'human' truth escapes the problems connected with the inability to prove the validity of any particular absolute vision of reality.

Having offered an alternative definition of the 'truth' of conceptions of social reality, to that offered by Marcuse, I suggest that a vision is false or ideological to the extent that it fails to take account of the alternative visions offered by the other parties in the relevant community. To the extent that one of the parties dogmatically attempts to impose its perspectival vision on the rest of the community, it is ideologically closing off its vision of 'reality' by failing to consider the 'reality' of the other parties. Although we cannot say that a vision is ideological in the sense of being a false reflection of what 'really is out there' in the real world, we may call it ideological in the sense of being closed to alternative viewpoints. Just as the 'truth' is not an absolute, but rather a <u>human</u> truth - an agreement by human beings to inhabit a particular reality - so 'falsehood' cannot be measured by absolute criteria, but rather by its inhibition of the process of consensual negotiation and consensual 'truth' formation.

In offering this alternative definition of truth and ideology, I have attempted to indicate how Marcuse's epistemological objectivist stance - which asserts that we can gain knowledge of reality as it really is - can be rejected and replaced by a nonobjectivist stance.

NOTE ON MARCUSE'S CONCEPTION OF EMPIRICAL SOCIOLOGY'S VALUE-COMMITMENT

Because Marcuse's position concerning the hidden value-commitment of empirical social science, is so similar to Habermas' - which I have criticised in detail - I will only briefly note the points on which I criticise Marcuse's position:

1. Where Marcuse argues that it is the methodology of empirical social science which accounts for its value-commitment towards serving administrative goals, I claim that the discoveries made through employing this methodology can in principle be used to serve 'radical' goals and are not inherently incompatible with these goals. When I analyse particular research projects in Chapter 5, I will substantiate this claim by locating and explaining the source of the administrative bias within these projects.

2. Where Marcuse assumes that the value-commitment of science towards 'mastering and using nature' is identical with the value-commitment towards "leaving the Lebenswelt in its essential structure ... unchanged" (1978: 231), I argue that these value-commitments are separate. I argue that the explanatory and predictive purposes of science are not incompatible with a quest towards radically changing 'the Lebenswelt".

3. Where Marcuse argues that empirical science mistakenly believes that it discovers true reality and fails to

recognise its discoveries as the 'objectivation of subjectivity', I argue that this is only so to the extent that empirical natural and social scientists adopt a positivist philosophical stance. I argue that the adoption of the positivist stance to justify the pursuit of empirical science, is not a necessary consequence of adopting the methodology of the empirical sciences. While agreeing with Marcuse that positivists unjustifiably claim that the empirical methodology allows reality to be discovered, I disagree that an attack on positivist assumptions implies an attendant attack on empiricism. Empirical scientists failing to adopt a positivist position and instead adopting a conventionalist position, will recognise that the reality discovered by science is an 'objectivation of subjectivity' - such scientists cannot be attacked for succumbing to the illusion that their discoveries represent a reflection of 'objective reality'.

CRITICISMS OF MARCUSE'S CONCEPTION OF THE RELATION BETWEEN SOCIOLOGY AND ETHICS

Marcuse claims that true sociological knowledge is value-laden and embodies the ethical injunction to struggle against existing forms of exploitation and domination.

In this section I will demonstrate how Marcuse's claims concerning true sociological knowledge, are based on an unjustifiable assumption, viz. the assumption that the evaluation of a thing as inadequate in the light of its essence, is equivalent to a moral prescription to remove this inadequacy. I will argue that Marcuse's attempt to link social science and ethics, is based on the illegitimate

equation of evaluation and moral valuing.[5] The illegitimacy of this equation will be exposed by:

1. noting that it is based on a questionable teleological conception of the universe

2. offering a viable alternative in the form of the conventionalist view of the relation between evaluation and moral prescription

3. indicating the advantages of accepting the conventionalist view.

The Teleological Link between Evaluation and Moral Prescription

In keeping with, and attendant on, his teleological conception of the universe, Marcuse assumes that insofar as things in nature and history fail to fulfil the potentialities given in their essences, they are bad: In terms of a teleological stance, all things strive towards fulfilling their true nature and the movement towards this fulfilment represents their progress towards the embodiment of goodness. Thus Marcuse's claim that the evaluation of a particular as inadequate in the light of its essence, implies moral valuation, is based on teleological assumptions (which - I have previously demonstrated - can be revealed as dubious).

The Conventionalist Differentiation between Evaluation and Valuation

Having briefly noted that Marcuse's conception of the link

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5. Marcuse's attempt to link social science and ethics echoes Habermas' attempt: Both Marcuse and Habermas ground the link in the inextricable connection between the descriptive and prescriptive moments of language. (For Marcuse this connection is located in the evaluative nature of concepts, which simultaneously possess descriptive and prescriptive force).

between evaluation and moral prescription, is based on a questionable teleology, I will now proceed to offer a conception not based on this teleology. Given that we cannot prove the teleology as correct, I will explore the implications of its rejection, for the link between evaluation and moral prescription. I will explore these implications by reference to conventionalism.

According to the conventionalist stance, the term 'good', when used to evaluate a particular in terms of a universal concept, simply refers to the appraisal of the extent to which the particular thing possesses all the relevant features (recognitors) given in the meaning of the concept. To the extent that something possesses all the features that, say, the concept 'knife' embodies, we may call the thing a good knife. Likewise to the extent that a particular thief embodies the characteristics given in the concept 'thief', we may call him a good thief. The term 'good' in these examples, is merely being used to describe something as possessing certain relevant features in terms of the definition of some concept. It is not being used to prescribe any moral action on anybody's part; it is not being used with action guiding force to suggest that we aid the knife or the thief in fulfilling the potentialities described in the concepts of a knife or a thief. In these examples the term 'good' lacks prescriptive force although it is being used evaluatively. This is because it is being used purely from a descriptive point of view to describe the extent to which a thing possesses certain relevant features.

The step towards morally valuing or prescribing action, requires that we use our language from the moral point of view; it requires that we formulate and use concepts which select and categorize relevant features in view of their (moral) desirability or undesirability. If we use the concept 'thief' when referring to a particular person,

we are using a concept which has already been formulated from the moral point of view in order to point to behavioural characteristics which the moral community deems undesirable. The selection of relevant features connected with the use of the concept 'thief', was made in accordance with the purpose of creating a moral concept which allows us to condemn certain people or actions. Thus calling someone a thief, already implies that we reject his behaviour from a moral point of view. Our devaluation of a person to whom we apply the label 'thief' is a necessary consequence of calling him a thief (and is a separate issue from our evaluation of him as a good or bad thief). The moment we use moral terms we are either valuing or devaluing persons or actions, for moral terms are formulated by the moral community with the purposes of classing things as either morally desirable or undesirable, and thus inherently embody these purposes.

Our valuation (or devaluation) of actions or persons by using moral concepts in labelling them, springs from the fact that moral concepts have an <u>inherently prescriptive element</u>. Valuation (or devaluation) is to be distinguished from evaluation: by evaluating objects as good or bad in terms of their conformity with some universal concept, all that we do is point to the extent to which such conformity is present - <u>we do not state our approval or disapproval of the conformity</u>.

The implications of this (conventionalist) differentiation between evaluation and valuation (or devaluation) for sociology are as follows: Marcuse has argued that if the concepts in sociology are to grasp social reality adequately, they must be used to point out where things fall short of the characteristics given in their essences, and they must also be used prescriptively to point out how men can act in the realm of praxis to bring about desirable circumstances. Marcuse assumes that the evaluative function of sociological

concepts whereby the inadequacies of things in the light of their concepts are grasped, is equivalent to the valuative function of concepts whereby the desirability or undesirability of circumstances are apprehended. Thus Marcuse contends that the concept of, say, 'democracy' (when used by sociologists) should be used evaluatively to point out where existing democracies fall short of the ideal given in the essence of 'democracy'; and he further contends that the evaluative use of the concept will automatically imply a prescription to bring about the ideal state of affairs expressed in the concept 'democracy'.

But the conventionalist differentiation between evaluation and valuation, implies that even if sociological concepts are used evaluatively to point out where the facts fail to comply with the definition of characteristics given in ideal-typical concepts, this will not automatically render sociology an ethical discipline: It is possible for sociological concepts to remain morally neutral and to be free of action guiding force, while being used evaluatively to measure the conformity of things with their concepts. Thus, for example, it is possible to formulate an ideal-typical definition of 'democracy' from a social scientific point of view, for the sole purpose of aiding the prediction of certain events. This ideal-typical definition of 'democracy' can function as a standard by which to measure the compliance of existing democracies with this conceptual 'democracy'. Nevertheless, because the concept will have been formulated from the scientific point of view, the measurement of the way in which existing democracies approximate this ideal, will serve only descriptive or explanatory uses - it will not have action guiding force.

The argument here is that it is only when concepts are formulated from the moral point of view by the moral community, that the use of these concepts and the evaluation of things in the light of these concepts, becomes morally

relevant. In terms of the democracy example, it is only insofar as 'democracy' is an ethical concept whose characteristics have been selected from the point of view of their moral desirability, that the labelling of a polity as falling short of the concept 'democracy', will have moral connotations and will imply prescriptions for action. If we wish to express our dissatisfaction with an existing polity, one way of doing so is by noting that it does not comply with our definition of a polity which we deem morally desirable. Insofar as our definition of 'democracy' is a definition of a polity which has been formulated from the moral point of view and which contains the approval of the moral community in its definition, evaluation of things in terms of this definition will be ethically relevant. But it is only in the case of moral notions, that the evaluative function of language will coincide with the valuative or devaluative function; it is only when we use moral concepts, that our evaluation of things in terms thereof has practical action guiding force.

Conventionalists would argue that it is only in the case of moral concepts that Marcuse's contention that "there is an objective essential relation between theory and praxis" and that "concepts are false if they are not related to the sphere of praxis" (1976: 91), has cogency. Instead of claiming (as Marcuse does) that all sociological concepts, to be true, must have action guiding force and must be ethically relevant, they would argue that sociology can extricate itself from ethics by formulating its concepts from the point of view of their descriptive or explanatory power: As long as sociology formulates its concepts from this point of view, their truth is not testable in terms of their relation to the realm of ethical praxis (for it is only concepts formulated from the moral point of view whose truth is so testable). It is significant to note here that when Marcuse is arguing for the "essential relation between theory and praxis", he uses concepts such as 'freedom, 'justice and 'humanity' as examples of

theoretical concepts which are linked to the domain of praxis. Conventionalists would agree with Marcuse that these concepts "include the struggle against existing slavery and exploitation ..." and are essentially related to this struggle (Marcuse, 1976: 91). But they argue that this essential relation is due to the fact that concepts such as 'freedom', 'justice' and 'humanity' are moral concepts which have already been formulated from the moral point of view: Marcuse cannot legitimately argue from the essential relation between these concepts and the realm of praxis, to the essential relation between all sociological concepts and the realm of praxis. For insofar as other sociological concepts are not formulated from the moral point of view, but rather from the descriptive or explanatory point of view, they will not be 'essentially related' to praxis.

Marcuse's argument to the effect that there is an essential relation between true sociological theory and praxis, is based on the assumption that scientific concepts formulated from the descriptive or explanatory point of view necessarily contain a prescriptive moment due to the discrepancy between concepts and factual reality. But the conventionalist position that this discrepancy has no prescriptive import if the concepts in question are scientific concepts, is equally compelling. Thus the distinction between social science and ethics still remains viable.

I have thus far demonstrated how conventionalism - by making the general distinction between evaluation and valuation - would challenge the Marcusian conflation of sociology and ethics.

I must now consider a further argument of Marcuse for the conflation of sociology and ethics and show how this specific argument can be challenged:

Marcuse claims that sociology, which is able to provide knowledge of "tendencies, (and) historical possibilities

(in man and society) that are in some way demonstrable" (Marcuse, 1976: 90), is related to ethics by the fact that ethics is grounded in knowledge of man and society's potentialities. Marcuse defines ethical justification as justification

> with respect to the human condition as such, to the potential of man in a given historical situation ... ethical terms such as 'right' or 'good' will be applied to political and social movements, with the hypothesis that the moral evaluation of such movements is ... more than subjective, more than a matter of preference (Marcuse, 1968: 133).

In order to reject Marcuse's claim that sociology and ethics are necessarily related by the fact that both are concerned with man and society's potentialities, I will question Marcuse's contention that ethical justification is given by knowledge of the human condition. Marcuse's attempt to link ethics with knowledge of man and society is based on the view that man's potentialities, as defined by his essence, provide the standards by which to measure his goodness; it is based on the view that by unmasking the potentialities of man, ethical values may be objectively discovered. Williams expresses this type of view-point clearly:

> So it is a central question whether 'man' is a concept which itself provides standards of assessment and excellence as a man; for if it does then it seems that they must be our standards. There have famously been philosophies which have held that it did (1972: 67/68).

But there are a number of problems connected with the "attempt to found morality on a conception of the good man elicited from considerations of the distinguishing marks of human nature" (Williams, 1972: 75). The first problem, as Williams (1973: 73/74) notes, is connected with the ambiguity of distinctive human characteristics:

> For if it is a mark of man to employ intelligence and tools in modifying his environment, it is equally a mark of him to employ intelligence in getting his own way and tools in destroying others.

Marcuse might argue here that when men are left free from societal constraint, their real wants and needs will emerge, and we will be able to ascertain the truth about man's potentialities. But the problem with this argument is that it assumes that the emergent wants and needs are indeed real wants and needs (in the Marcusian sense of springing from the personal inner dimension of the subjects), and there is no way of proving the correctness of this assumption. Thus the ambiguity of the needs and potentialities of man, renders the attempt to found an unquestionable solid morality based on such needs and potentialities, impossible.

The second problem with attempting to found morality in man's potentialities as given in the concept of 'man', is that this concept of 'man' may not provide us with moral standards by which to morally assess man's actions. The idea that it will provide such standards is, again, based on the failure to distinguish different uses of the word 'good'. Marcuse assumes that when the word 'good' is used to evaluate a particular man or group of men in terms of the potentialities expressed in the concept of 'man', it is also being used to value the characteristics which this concept of 'man' embodies. The conventionalist view, however, is that any concept of 'man' is a heuristic device used by human beings to organize their world, and that it will only provide standards of valuation to the extent that it is formulated by the moral community to denote and categorize morally relevant characteristics. Thus the moral concept of 'man' - which alone can provide standards of moral assessment - will not point to 'what man really is' by isolating his potentialities; it will point to what the moral community deems desirable, praiseworthy conduct and characteristics, so that the moral label 'man', when

applied to someone, will express moral approval of him. To the extent that the concept 'man' is not a moral term and has not been formulated from the moral point of view, any attempt to use the concept to justify ethical action, will amount to misuse of the concept: While the concept 'man' as a heuristic device used by, say, the social scientific community, may be used to evaluate particular men as good in the light of the concept, it cannot be used to express moral approval or disapproval.

This conventionalist view of the denotation of the concept 'man', is important: It implies that even the acceptance of Marcuse's view that it is the task of social science to uncover man and society's potentialities, would not necessarily render sociology inextricably linked to ethics: A conventionalist interpretation of man's 'potentialities' would still preserve the distinction between social science and ethics.

Dangers Inherent in Marcuse's view of the Relationship between Social Science and Ethics

I have demonstrated that Marcuse's conception of the link between social science and ethics can be challenged by a viable counterposition. I now wish to consider the disadvantages of accepting Marcuse's position, and conversely, the advantages of accepting the conventionalist counterposition.

Marcuse claims that his moral judgment of a thing as 'bad', is not based on a subjective value judgment, but on the potentialities given in the essences of things, which are apprehended as they really are. The apprehension (evaluation and valuation) of something as inadequate in the light of its essence, is scientific in the sense that it is grounded in the fact of the real inadequacy of the thing (cf. Marcuse,

1976: 90). By arguing that the evaluation of a thing in the light of its essential definition, offers absolute ground for moral judgment, Marcuse performs an intellectual equation which allows him to reject alternative value judgments as (absolutely) unscientific. But what Marcuse fails to recognise is that his moral absolutism is coupled with an illegitimate certainty as to the nature of moral truth. His grounding of his moral claims in the potentialities given in things' essences, does not render them objectively true; it only serves to legitimise them with reference to a questionable authority. The reason why the potentialities given in things' essences cannot serve as the authority for conclusively proving the validity of ones moral claims, is because the definition of these essences still remains problematic: Marcuse's claims about things being really bad in the light of their essences, ignores the problems connected with knowing what real potentialities these essences comprise.

The danger of Marcuse's ethical judgments is that they pose as certain knowledge of reality, when in fact their certainty has not been - and cannot be - established. Marcusian absolutism is ill prepared to cope when faced with (viable) counterjudgments, and must resort to dogmatism in these circumstances. It is this dogmatism which subverts the attempts of the moral community to negotiate an inhabitable moral universe in the midst of competing moral perspectives.

It is the light of the problematic nature of Marcuse's ethical absolutism, which grounds ethics in the facts about things' essences, that conventionalism poses as a compelling stance: The advantage of conventionalism is that it does not attempt to link values and facts in such a way as to conclusively prove the validity of these values. Rather, 'true' value judgments are regarded as tentative negotiations of the moral community engaged in constituting a moral

universe out of relevant factual data. No party in this community can claim the right to impose its ethical conception on the other parties in the name of absolute truth or absolute goodness, the possibility of possessing absolute truth having been ruled out a priori. Thus a genuine negotiation of the kind envisaged by Hare in which all parties participate and remain open to the other parties perspectives, becomes more feasible.

CONCLUSION

Marcuse's critique of positivist empiricism is cogent to the extent that it highlights the dangers of regarding thought structures as passive reflectors of a given empirical reality. When reason is regarded as a means of mirroring given empirical facts, it slips into a conservative submission to these facts. When a universal concept is reduced to particular given instantiations thereof, the knower does not actively intervene in the historical process to uncover alternative instantiations which are (potentially) embraceable by the concept. Marcuse has thus drawn attention to the conservative passivity attendant on the positivist operationalisation of concepts.

But Marcuse's conception of essences denoted by universal concepts, also has inherent dangers. Although it does not imply a slip into positivist passivity, it offers the knower a blank cheque to act on behalf of his perception of the essences of things: His action to help realise the potentialities given in these essences, becomes justified by his knowledge of 'universals'. No longer do we have a dangerous positivist passivity, but a dangerous Marcusian activity. Both of these modes of behaviour are dangerous because they are grounded in unprovable absolute claims about the nature of reality and of truth.

The conventionalist view of the relation between universal concepts and their particular instantiations, surpasses the

difficulties inherent in positivism and in the Marcusian position. Conventionalism does not slip into a passivity which ignores and suffocates the realisation of potentialities; it allows the knower to actively intervene in history to generate fresh empirical conditions in which (changing) concepts will have application. By not equating the reality of things with a particular conceptual definition thereof, it avoids the positivist collapsing of potentiality and actuality. Conventionalism also does not slip into the dangerous activity of Marcusian essentialism: Because conventionalism is inherently geared towards allowing community negotiation of the definition of 'essences', it does not offer a particular knower or group of knowers a blank cheque for action.

Marcuse's claim concerning the verifiability of critical sociological theory, can be characterised as embodying an objectivist epistemological stance similar to the positivist epistemology: In regarding critical theory as absolutely true by virtue of its relation to reality, Marcuse does not transcend the positivist correspondence theory of truth (with all its attendant problems). Both the positivist and Marcusian epistemology, are based on unjustifiable assumptions concerning the nature of truth and of reality; both positivists and Marcuse attempt - in vain - to establish the correctness of their visions as to the methodology which will generate 'the truth'. Conventionalism poses as a response to the problems connected with (positivist)and (Marcusian) objectivism.

Marcuse's account of the nature of values and of the relationship between facts and values, is based on questionable teleological assumptions. It is only the acceptance of these teleological assumptions, which allows the 'ought' moment of language to be located in the evaluative function of language. If we reject the teleological view of the universe, then evaluation becomes distinguishable

from valuation; description becomes separable from prescription. The conventionalist view of the relation between description and prescription, poses as a viable alternative to Marcuse's teleological view, and furthermore, avoids the ethical dangers inherent in his view, (by avoiding the presentation of moral judgments as objectively 'true').

AN EXAMINATION OF MARCUSE AND HABERMAS' ARGUMENTS IN THE LIGHT OF PARTICULAR PIECES OF SOCIOLOGICAL RESEARCH

INTRODUCTION

In this chapter Marcuse and Habermas' criticisms of analytical-empirical sociology are examined in the light of two research projects undertaken using analytical-empirical methodological procedures. The research projects relate to a particular problem in South Africa, namely the problem of ill health. I have chosen this particular problem because it is a problem which Marcuse and Habermas would regard as one of the dysfunctions produced by the structures of the capitalist social organisation, which administrators attempt to remove through technical manipulation.

Marcuse would regard the attempt to solve the health problem within the confines of capitalist organisational structures, as an example of the "fallacious concreteness of positivist empiricism", because it allows administrators to (conservatively) "explore and improve the existing social conditions within the framework of the existing societal institutions" without examining the "very structure of this society" (1964: 93). Marcuse would regard the reduction of the health problem to one which is administratively solvable, as an example of the repressiveness of operational concepts, which "terminate in improved methods of social control" (1964: 94). He would argue that research projects undertaken using empirical methodological procedures do not and cannot "express a sweeping indictment which takes the particular case (the health problem) as a manifestation of a universal state of affairs (the 'very structure of this society')" (1964: 95). In examining research projects

dealing with the problem of ill health in South Africa, I will be able to discuss the limitations of Marcuse's attack on sociological empiricism.

The health problem in South Africa also serves as an example of a phenomenon which Habermas would regard as dependent on the 'totality', that is, on the organisational structure of capitalism. Habermas would argue that analytical-empirical sociology is unable to examine the dependence of this (health) phenomenon on the totality; in other words, is unable to recognise that the root cause of the health problem lies in the capitalist structure of South African society. My examination of research projects dealing with the problem of ill health, provides a way of probing Habermas' claim that analytical-empirical sociology necessarily offers an ideological vision of social reality.

The aim in Chapter 5 is to examine the cogency of Marcuse and Habermas' critique of positivism, while at the same time arguing that their critique of empiricism is ill grounded: By showing to what extent the two research pieces can be exposed as limited, I reveal the extent of the legitimacy of Habermas and Marcuse's arguments against sociological positivism. But by demonstrating how conventionalist empirical concepts surmount positivist limitations, I reveal the illegitimacy of Habermas and Marcuse's critique of sociological empiricism. My attempt is to reveal the way in which the analytical-empirical procedure, when coupled with a conventionalist self-understanding, is able to offer knowledge which cannot legitimately be criticised as being ideological - either in the sense of being fallacious or in the sense of serving to perpetuate the status quo.

In demonstrating how conventionalism in sociology could eliminate sociology's conservative bias, I discuss the problem of ethical emancipation. I criticise Habermas and Marcuse's

attempt to justify their (absolute) moral claims by linking the descriptive and prescriptive moments of language. I note the danger of their objectivist epistemological view that (absolute) descriptive and prescriptive truth is generated by critical theory. I clarify - in the context of the research - why I accept the conventionalist definition of scientific and moral 'truth'.

RESEARCH PROJECT 1

The first research project which I shall discuss, is a research project which aims at the "evaluation of a community approach to preventable disease in Gazankulu" (1979: 303). The aim of the study was to "measure scientifically (using analytical-empirical procedures) the impact and effect of the care groups" (1979: 303). To this end a survey was undertaken in two villages, one of which possessed a care group and clinic, the other only a care group. In keeping with an empirical methodological approach, questionnaires and interviews were used to obtain 'observable' information. As one index of ill health, the specific disease of trachoma was studied - various (measurable) variables connected with the prevention of this disease were chosen. The two villages were divided into an experimental care group and a control noncare group, the groups being compared in the light of the chosen variables. The first variable was the possession of health requirements, which was measured in terms of the possession of (quantitatively measurable) soap, personal washcloths, pit latrines and vegetable gardens. The second variable was the consumption of clean water which was also operationally defined in terms of measurable indices. The third variable was the use of medical services. The study revealed a significant difference between the care

group and non care group with respect to all of these variables in both villages. The study thus revealed a correlation between belonging to a care group and possessing the necessary requirements connected with the prevention of trachoma. The study then attempted to measure the effect of contact with care groups on the rest of the village, as well as the villagers' perception of the usefulness of the care groups. The overall conclusions of the study were that "the care group members have some understanding of the goals of preventative medicine and the means of achieving them" (1979: 311) and that "the knowledge and attitudes of those members of the general community who have made contact with the care group testifies to their potential" (1979: 311). The authors conclude with the hope that Dr Kok will "integrate the interventions which suggest themselves with the overall primary health plan for Gazankulu during the next five years" (1979: 311).

EXAMINATION OF THE MARCUSIAN-TYPE APPRAISAL OF RESEARCH PROJECT 1

Faced with this research project on preventable disease in Gazankulu, Marcuse would claim that the results are ideological and fallacious because the universal problem of ill health in South Africa has become dissolved into the problem of trachoma in these two villages. The problem has become reduced to the particular problems of people in these villages; and the fact that the "particular problem is a manifestation of a universal state of affairs", (1964: 95) is ignored. This type of treatment of the universal health problem which springs from the structures of capitalism, is similar in Marcuse's eyes to the operational translation (by industrial sociologists) of general statements like "The job is dangerous", or "Rates are too low", into particular complaints of particular workers. As Marcuse argues (1964: 95) that it is only the generality of the statement, "Wages are too

low", which expresses a "sweeping indictment" of the "very structure of society" (and not merely of the "particular condition of the factory") so he would argue that only the general statement, "Ill health is rife in South Africa", adequately grasps the universality of the problem.

In tackling the Marcusian-type criticism of this research project, I firstly want to agree with Marcuse that this particular set of authors are attempting to solve the health problem adminstratively without threatening the capitalist organisation of society. Marcuse would be correct in arguing that in the case of this research project, the operational definition of the problem of ill-health did lead to a failure to consider the structural roots of the problem. One of the structual roots which Marcuse might mention in substantiating his attack on this type of research project, is the fact that the homelands lack adequate sanitation and general provision of pit latrines because provision of such preventative medicine by the South African Government is a non-profit making venture: Marcuse is correct in arguing that the lack of sanitation has a structural cause of which the researchers make no mention in their study. Futhermore, Marcuse could argue that although the researchers note that it costs at least R25 to instal a pit latrine and that this results in the care group of the less wealthy village having proportionately fewer latrines than the care group in the wealthier village, they fail to explore the implications of this finding. They simply state that "it is probable that this difference arises out of the differing economic status of the two groups rather than from any reluctance to instal pit latrines" (1979: 307). In making their policy recommendations, however, they do not point to low economic status as a cause of the incidence of ill health, and simply gloss over this issue: Thus in their summary (1979: 308) they state that the figures relating to the possession of health requirements "seem to show that the care groups learnt what the recommended health requirements are, and that they have also acquired these items". The

constraints and difficulties of acquiring the money to buy these items (given that they are not publically provided by the central government) is conveniently ignored. According to Marcuse, the general condition that "wages are too low" is inherently connected to the capitalist social organisation. Marcuse would argue that the failure of the researchers to draw attention to the relevance of capitalist structures in generating the economic constraints which account for the inability to install pit latrines, implies that a limited account of the problem of ill health is being offered by these researchers.

In criticising this particular research project, Marcuse would thus rightfully claim that the generation by the 'whole' of the particular problem with which the researchers deal, has not been given attention.

Research Project 1's Operationalism

Having agreed with Marcuse that this particular research project has ignored crucial issues related to the structure of capitalism, I now wish to consider whether this ignorance is a necessary result of the analytical-empirical methodology used: In keeping with the analytical-empirical approach, the researchers have defined their concepts operationally in terms of measurable criteria. The question which I will now pursue, is whether these operational criteria necessarily limit vision in the way that Marcuse claims. Marcuse would argue that the definition of say, 'clean water' as boiled water, rainwater or water from a borehole, compels the researcher, or anybody using the concept, to close off his vision to alternative definitions. Marcuse might claim for example, that defining 'clean water' as boiled, rain, or borehole water, implies that the only way to offer clean water to the village is to offer means of boiling it, to suggest means of collecting rainwater, or

to encourage better use of boreholes. Marcuse might argue that there are other alternative means of providing clean water which this operational concept is unable to comprehend: In a non-capitalistic social system clean water provision would not be low priority and a comprehensive sanitation system which satisfied the health needs of the population, could be implemented. The researchers' operational definition of 'clean water' fails to capture, and thwarts the possibility of capturing, this non-capitalist alternative. But against Marcuse I argue that the given operational definition will not have such a compelling force on the user of the concept if - in keeping with an epistemological subjectivism - he regards concepts as heuristic devices which can be changed when his purposes for the concepts change; as long as the user of the concept does not regard concepts as static symbols whose meaning is once and for all defined by the 'reality' which they denote, the user of the concepts is free to change his operational definitions as his purposes for the concepts change. Insofar as his purposes are not the administrative purposes of solving particular problems within the confines of the property institutions of capitalism, and insofar as he views concepts heuristically, he will be able to treat the particular operational definition used as merely one among many for tapping the general problem of the provision of clean water to all members of society (through perhaps a radical alteration of the structures of society).

Likewise, defining ill health operationally in terms of trachoma, does not imply that the researcher is conservatively confined to equating ill health with this particular instance thereof, or with any other particular operational definition thereof. Insofar as the researcher is concerned with the general problem of health - which he might see as rooted in capitalist structures - he will recognise that trachoma is merely one manifestation of the problem; i.e. one manifestation of a more general concept.

My argument is that it is only when:

(i) the researcher is committed to the idea that concepts mirror objective reality, and/or

(ii) the researcher has administrative concerns

that his use of operational concepts limits his vision of the possibility of radical change to remove particular social problems. In other words, as long is the researcher has a conventionalist understanding of the nature of his concepts and is not geared towards the purpose of administrative control, his scientific analysis of the health problem using operational concepts will allow for rooting the problem in the capitalist social organisation. Furthermore, his analysis will allow for seeking radical alternative means of alleviating the health problem.

In the language of potentiality and actuality, the conventionalist researcher will be able to recognise the potential noncapitalist alternative of, say, providing clean water, and will not equate the given (actual) alternatives with 'reality'. The conventionalist will not be conservatively committed to 'realistically' surveying the given alternatives and working within these confines. The conventionalist recognises that the given actualities in 'reality' are subject to change in the light of possible alternatives: 'Reality' is regarded - through an ontological subjectivism - as a 'being' in flux; it is not a given objective fact to be reckoned with.

I have thus demonstrated that Marcuse's critique of operationalism fails to take account of conventionalist type operational concepts, which are not geared to mirroring static objective reality. I now wish to note that conventionalist operationalism surmounts the problems connected with Marcusian

essentialism: Marcuse might argue that the essence of clean water is that it is universally provided in a comprehensive sanitation scheme. But there is no way of proving the validity of this (or any) definition of the essence of 'clean water' that Marcuse might supply. Marcuse will attempt - in vain - to rationally justify his definition of this essence, but will ultimately have to resort to a dogmatic claim that this is the 'true' definition. Conventionalist operationalism does not allow for the unjustifiable dogmatism attendant on equating 'truth' with a perceived universal definition, and thus seems to me a superior alternative to Marcuse's position.

EXAMINATION OF THE HABERMASIAN-TYPE APPRAISAL OF RESEARCH PROJECT 1

In this section, I will examine Habermas' claim that the experimental procedure is unable to capture the dependence of each social phenomenon on the totality. Habermas would note that in the case of this particular research project, the researchers have defined variables and sought correlations between them, but have not examined the connections between these variables (or these correlations) and wider (capitalist) social structures. Habermas would argue that the failure to examine the dependence of, say, the variable "lack of possession of health requirements' on the capitalist structures which mitigate against provision of these requirements to the general population, is an intrinsic result of the use of the experimental method: Habermas claims that the experimental method is unable to grasp the dependence of particular phenomena on the social totality. I agree with Habermas that in the case of this research project, the correlations which were examined and which were used to propose the policy decision to "integrate the interventions which suggest themselves with the overall primary health plan for Gazankulu ..." (1979: 311), drew

attention away from the consideration of capitalist structures as a causative influence on the variables and their correlations. But I disagree with Habermas that such a consideration is ruled out by the fact that the analytical-empirical procedure of seeking correlations between measurable variables has been adopted. Rather I argue that the use of this procedure is compatible with examining the role of capitalist structures on the presence or absence of the variables and their correlations. Using the example of this research project, I claim that the researchers could conceivably have undertaken not only to examine the relations between the variables which they chose to examine, but also to examine the social organisational conditions in which these correlations persist: The empirical-analytical procedure is not intrinsically geared towards keeping capitalist structures constant when testing the relationships between variables. Capitalist structures may become a variable which is considered as playing a possible relevant role in determining and shaping the behaviour of the other variables and their correlations. There is no reason why the use of the experimental procedure should thwart the possibility of recognising the relevance of capitalist social structures as a crucial variable to be considered and accounted for. To the extent that researchers using the empirical methology of undertaking experimental surveys, are aware that they are not merely seeking ways of modifying social conditions within capitalist social structures (and thus of discovering connections between social variables while keeping private property institutions constant) they will not ignore the relevance of the 'totality'. Such researchers will not proclaim the correlations discovered while keeping capitalist structures constant, as given and unchangeable; in the interest of extending the range of application of these lawful correlations they will seek to continually examine fresh empirical conditions (such as the conditions in which private property institutions have been removed) which render these lawful correlations

inapplicable and call for a modification of existing theory. The interest behind use of the analytical-empirical procedure, may well be the interest in exploring the effect of a change in basic capitalist social structures on the variables related to ill health. Because the analytical-empirical procedure may be coupled with a (conventionalist-type) willingness to explore the fresh empirical conditions in which present laws are rendered wholly or partially inapplicable, use of this procedure does not mitigate against the possibility of examining the dependence of each phenomenon in society on the totality responsible for the presence and characteristics of the phenomenon.

Habermas' critique of the analytical-empirical procedure as such, ignores the procedure's ability - when coupled with conventionalism - to explore the alternative social organisations in which existing social laws are rendered inapplicable. Because Habermas equates the use of the analytical-empirical procedure with the "objectivism of the sciences", he only considers the possibility of a conservative use of this procedure to uncover given objective laws; he fails to consider the consequences of not using this procedure to discover a static objective lawful structure in reality. It is for this reason that Habermas fails to recognise that the use of the analytical-empirical procedure is not incompatible with the (ethical) goal or removing preventable suffering through a radical alteration of the laws governing capitalist social structures. To the extent that the empirical-analytical procedure points to capitalism as a causative factor in the perpetuation of unnecessary suffering (due to say ill health), such findings will offer the ethical community relevant reasons for suggesting the eradication of these structures. The emancipatory interest in radically altering capitalist social structures is <u>not</u> thwarted or stifled by a social science which uses the analytical-empirical procedure - the science may provide relevant factual material which the community could use to justify the overthrow of capitalism.

MARCUSE AND HABERMAS' MORAL ABSOLUTISM

Having noted that Marcuse and Habermas are mistaken in believing that science is essentially tied to the administrative interest and is incompatible with the emancipatory interest in overthrowing capitalism, I now wish to argue that science cannot dictate the moral imperative of overthrowing capitalism. In this section I wish to develop the important point that even if science does reveal factual material concerning human suffering as a function of capitalism, this does not provide sufficient material with which the moral community can unquestionably justify the need for removing capitalist structures. Marcuse and Habermas assume that once the connection between human suffering and capitalist structures has been grasped, the evident moral conclusion follows that capitalism must be removed. Again referring to the research project which I have cited, I argue that although it is true that private property institutions might be a cause of low wages and hence of the inability of individuals, say, to instal pit latrines, perhaps this evil effect of capitalism could be removed through the administrative project envisioned by the research group - perhaps an "overall primary health plan for Gazankulu in the next five years" would alleviate the suffering of the people of Gazankulu in respect of ill health as well as would the elimination of the institutions of private property in South Africa.

Furthermore, this kind of community health programme could conceivably be implemented among all communities suffering from ill health as a result of capitalist social structures. In this way the problem of ill health could conceivably be solved even though the capitalist structures (which admittedly cause the problem) have not been removed. My argument here is that even if we agree with Marcuse and Habermas that ultimately the cause of the ill health is the capitalist social structure and that this ill health would

be eliminated if such a structure were dissolved, it does not necessarily follow that this is the only way of removing this evil effect of capitalism. Likewise the possibility that all the evil effects of private property institutions could be removed while still retaining these institutions, cannot simply be rejected as ideological and fallacious. Thus even if science did reveal that private property institutions were responsible for many evils, science might also reveal that these problems can be solved administratively and do not require an overthrow of capitalist structures for their solution. Marcuse and Habermas' basic premise is that because these problems spring from capitalist structures, they require the removal of capitalist structures for their solution. They thus reject a priori the possibility of a successful piecemeal engineering type approach to social problems.[1] They reject a priori the possibility of reorganising the priorities within the private enterprise system, so as to ensure that the evils associated with the system are removed. Thus they would reject the moral relevance of the suggestion that a private property system could be developed whereby:

> a company is required to employ a fixed number of people at a standard wage and then makes its profit by organising productive employment for them. This would

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1. In contrasting 'radical solutions' with 'piecemeal engineering' (or 'technical solutions') I have not attempted to question Marcuse and Habermas' distinction between the two. For the purposes of this essay I have accepted their claim that a radical change of the social structure requires the elimination of the private property system (as a necessary requisite for such change); and that attempts to alter the social fabric while retaining the private property system amounts to a technical modification, rather than a qualitative change, of capitalist social structures. While retaining the distinction between radical and technical change of social institutions, I question the contention that the dictates of morality necessitate radical changes of the capitalist social organisation.

> ensure that companies do not employ as few workers as possible in order to make profits (de Bono 1978: 112).

Likewise they would reject the moral worth of an arrangement whereby, within a private property system:

> people stayed at the same jobs (rather than being promoted) but got paid more according to ability, hard work, seniority, financial need, or any other factor ... A person could also make progress without changing his position by reducing the amount of time he had to spend doing the job, and eventually he may be working only two days a week (de Bono, 1978: 75).

Habermas and Marcuse's attempt to justify their moral rejection of the piecemeal engineering type of approach, takes the form of grounding the radical prescriptive task which they exhort, in the descriptive truth about social reality. Habermas and Marcuse link the realm of value and fact - prescription and description - in order to prove the absolute validity of their (radical) moral judgments: The moral demand to effect an emancipation from capitalist structures is regarded as given in the descriptive truth about social reality and as ipso facto correct. But what Habermas and Marcuse fail to recognise is that it is only a particular intellectual perception of the link between values and facts which 'demonstrates' the absolute validity of their moral judgments. They fail to recognise that their moral imperatives are rendered dubious by the existence of say, the conventionalist conception of the relation between facts and values (which questions their intellectual perception).

In the conventionalist perception of the relation between facts and values, prescriptive truth - though dependent on relevant facts - is nevertheless relative truth. Although conventionalists agree with Marcuse and Habermas that moral truth is dependent on relevant facts and is thus not ultimately

irrational, they shun the quest for absolutely correct moral judgments. The relation between facts and values, though sufficient to label moral truth as 'rational', is not sufficient to label it as absolutely correct.

The danger of Habermas and Marcuse's moral absolutism consists in its unjustified confidence in its moral judgments at the expense of the judgments of the other concerned parties. It is because conventionalism transcends this danger, that I ultimately exhort its acceptance. In the conventionalist model, neither the radical nor the piece-meal engineers will be able to attack each other for inadequately construing the absolutely correct moral course to take. Instead of seeking 'the truth' through an epistemological relation in which the knower perceives one correct moral reality, the ethical community is geared towards considering alternative moral 'realities' and negotiating an inhabitable universe. No one person or group may claim to possess 'absolute' moral truth in an attempt to impose a way of construing the situation without considering the view-points of the others.

RESEARCH PROJECT II

The second research project which I will examine is a project by Clarke on "the need for a community development approach to combating malnutrition" (1980: 47).

The study was performed on fifty households in the Nqutu area and was aimed at discussing "possible alternative methods of combating malnutrition in South Africa" (1980: 47). Correlations were sought between malnutrition and variables such as 'mother's marital status', 'occupation of father', 'whether lobola was paid', 'whereabouts of

father', 'income of family', 'livestock ownership', 'shopping facilities', 'water supplies', 'nutrition knowledge', 'attitudes towards family planning' and 'educational level of mother'. All these variables were defined operationally. Thus, for example, 'whereabouts of father' was defined in terms of the observable features of being at home, in the homeland but not at home, in an urban area, away on a farm, dead, or in an unknown spot. 'Shopping facilities' was defined in terms of the (measureable) percentage of shops at which fresh milk, fresh meats, fresh vegetables, fresh fruit and eggs were available, and the percentage at which they were unavailable. 'Water supplies' was defined operationally in terms of the percentage use of a protected spring, unprotected spring, river or stream, tap, well or other, and the time taken to collect water was also incorporated in the definition of water supplies. Likewise the other variables were operationally defined. The study revealed correlations between malnutrition and most of the variables that were isolated for attention. With regard to 'whereabouts of father', it was revealed that "in the 54% of families where the father was in an urban area, only 30% of the children were malnourished" (1980: 51). With regard to 'shopping facilities', it was revealed that although there was no correlation between what was available in shops and the occurrence of malnutrition, "the unavailability of fresh milk ... does precipitate serious health problems" (1980: 58). Clarke suggests that the shopping facilities suffer from the fact that "while the transition from a subsistence economy to a money economy has been fairly rapid, there has been a lag in the creation of a suitable infrastructure for marketing and distributing essential goods" (1980: 59). When discussing water supplies in the homelands, Clarke notes that none of the households boiled water prior to consumption and that "the statistics reflect a very unsatisfactory situation in the homelands as far as water supplies are concerned" (1980: 59). She suggests that

this inadequate water supply is also a contributing factor to malnutrition in the homelands.

Having sought and discovered correlations between certain measurable variables and malnutrition, Clarke notes that there is a "diversity of factors that contribute to the high incidence of malnutrition" (1980: 65). She claims that what is needed in the rural areas is a "massive community development programme". She sees literacy campaigns as the first step in the community development programme. These campaigns are necessary because "not only does learning to read and write raise people's morale but it also immediately provides a new medium of communication" (1980: 67). Clarke suggests that

> Once the community has been mobilised through adult education programmes and new confidence has been instilled in the people concerning their ability to make a positive contribution to community affairs, self help schemes aimed at combating malnutrition can be considered (1980: 68).

Such self help schemes would involve using the available land to grow food; improving and protecting water sources; establishing consumer co-operatives; developing awareness of social problems like alcoholism and illegitimacy; and establishing committees which ensure that rural communities are not exploited by shopkeepers, civil servants, or school authorities.

Apart from these suggested schemes for the homelands, Clarke proposes that "definite steps have to be taken to counteract the host of problems that the migrant labour system precipitates at family level" (1980: 69). These steps could be implemented by companies employing large numbers of migrant workers and would include

> helping the migrant worker adjust to urban life, ... consolidating the migrant worker's position as a responsible head of a family

> unit ... and enabling the migrant worker to be an innovator of change and progress within the community from which he comes (1980: 69).

MARCUSE AND HABERMAS' (POTENTIAL) CRITICISM OF RESEARCH PROJECT 11

In criticising Clarke's research project, Marcuse and Habermas would note that all of her policy proposals pose no threat to the private enterprise system operating in South Africa: She takes it for granted that the transition from a subsistence economy to a money economy is a progressive step which has not generated insurmountable problems. The only problem with this transition is that its rapidity caused a lag in the creation of an infra-structure for marketing and distributing goods efficiently. Clarke does not consider that the transition to a money economy exacerbated the problems of rural areas, but simply assumes that the problem in the rural area is that they lack adequate cash to become consumers in the money economy. "Somehow, more income must find its way into the rural home" summarises Clarke's viewpoint on this matter. She sees the solution to this problem of inadequate cash, in the migrant labour system in which labourers as responsible heads of family units, send home cash earned in the urban areas. Thus Clarke accepts and does not call into question the social organisation in South Africa which allows the homelands to serve as reservoirs of cheap labour for the private enterprise system, but which fails to consider combating malnutrition in the homelands as a top priority project.

Furthermore, Clarke optimistically assumes that a self help program by the community itself (at little or no cost to the South African government) will be able to solve the problems connected with malnutrition in the homelands.

For example, she does not consider the need for a government implementation of a safe, protected water supply in the homelands, but hopes that "the improvement and protection of water sources ... will come about when the need for a safe, protected water supply is thoroughly understood (by the community)" (1980: 68). After isolating the lack of adequate water supplies as a critical problem Clarke suggests a method of dealing with the problem which is manageable within the confines of the capitalist status quo and which poses no threat thereto.

Clark also (optimistically) hopes that industrialists will recognise that "they have a very heavy debt to pay in the rural areas whence the bulk of their labour force come" (1980: 69). She does not, however, ask much economic sacrifice from such industrialists, but only suggests that 'to pay their debt' they could establish a division in the personnel section that deals 'specifically with migrant labour issues' (1980: 69). She does not consider that most industrialists will probably undertake this limited sacrifice not because their consciences urge them to pay their debt, but because they consider it good economic policy to have satisfied and contented workers. Clarke is only asking industrialists to introduce changes which ultimately serve their own interests. This suggestion of Clarke thus poses no threat to the workings of capitalism or to those who primarily benefit therefrom.

When diagnosing the 'variety of factors' which contribute to malnutrition in the homelands, and when discussing possible solutions to the problem based on this diagnosis, Clarke has not considered the workings of capitalism as having any bearing on the issues. Because Marcuse and Habermas believe that capitalist structures are the prime determinant of the problem, and that the problem is insurmountable within the confines of capitalism, they would characterise her study as failing to capture the problem adequately.

Research Project 11's Operationalism

Marcuse would argue that it is the operational character of the definitions of concepts used in the study that causes the bias towards treating the problem as (in Harris' words) "isolated and suitable for direct solution, rather than the inevitable product of the constitution of society" (1971: 212). Marcuse would argue that for example, the definition of 'whereabouts of father' compels the user of the concept to consider only the alternatives captured by the definition and to forget that 'whereabouts of father' could be defined differently. He would argue that by locating places such as 'in the homeland' or 'in the urban area', the operational definition contributes to the user's acceptance of the fact that the country is divided into homelands and urban areas which are distinct givens. In this way the possibility of envisioning an alternative social order in which the distinctness of the homeland and urban areas has collapsed, is lost to consciousness. The present status quo is rendered natural and eternal through the use of the 'closed' operational definition.

But against this type of argument of Marcuse, I again appeal to the fact that (conventionalist) sociologists may use concepts as heuristic devices and may thus be aware of alternative possible definitions of concepts, while using a chosen definition to undertake a particular study. Thus the researcher may for the time being define 'whereabouts of father' in terms of definite immutable localities in order to understand the present spatial distribution of fathers, but he is not committed to permanently closing the definition of 'whereabouts of father'. He can still imagine and 'fantasise' about a possible future in which this definition will be obsolete and will no longer serve the purposes for which it is presently being used. The researcher may well recognise that all that he is doing is attempting to locate the distribution of fathers, given the possible areas in which they can now be located.

The researcher will then not be unaware that an alternative definition of 'wherebouts of father' will be more suitable when future developments towards a noncapitalistic society render the present concept inapplicable to the empirical conditions.

My argument is that it is not the operational character of the concepts used, which accounts for Clarke's eternalising the present and being unable to conceive of an alternative social order in her policy recommendations. Rather, it is either the fact that Clarke has a positivist understanding of the nature of concepts and of sociological laws, and/or the fact that Clarke is operating under the pressures of administrative interests, which accounts for her resignation to the capitalist status quo.

As a further example, I will consider the operational definition of 'shopping facilities' in terms of the percentage of shops atwhich supplies of milk, meat, vegetables, fruit and eggs were available or unavailable. Marcuse would argue that this definition of shopping facilities closes off the vision of an alternative social system in which shops not only have these foods available, but ensure that all members of the population are capable of benefitting from these supplies. Defining shopping facilities in terms of mere availability, closes off the possibility of conceiving shopping facilities in terms of provision of necessary goods to all members of the population. The given operational definition used, thus contrubutes to the acceptance of the status quo in which shops are designed merely to have food available, but not to ensure its equitable distribution.. For instance Clarke's definition fails to 'grasp' the fact that in a socialist society

> There could be community food stores and anyone living in that community would take as much food as he needed and then simply insert his community identity card into the machine at the

> check out counter. The price is then averaged monthly over all the community residents and added to local taxes (de Bono 1978: 67)

But again, in keeping with the conventionalist position, I argue that although Clarke's definition of 'shopping facilities' does fail to capture a radical type of alternative conception, this is not a necessary result of the use of operational concepts. To the extent that the user of concepts is aware of the importance of changing concepts when faced with fresh empirical circumstances, he will be able to envision a possible future in which the present definition of shopping facilities is no longer applicable. Furthermore, through using the present operational definition of the concept, the narrow range of applicability of the concept may become apparent to the user. This could impel him towards attempting to implement new (socialist) empirical circumstances to stretch the range of applicability of the concept 'shopping facilities', so that a modification and extension of the 'old' definition can be achieved. In short, the use of the operational definition of 'shopping facilities' is not as restrictive as Marcuse claims.

Research Project 11's Experimental Method

Having criticised the Marcusian-type arguments against empirical-analytical procedures in the light of this particular research project, I must consider Habermas' contention that the project is unable to examine the dependence of the (malnutrition) phenomenon on the social totality: Habermas would argue that Clarke's acceptance of the fact that there is a 'diversity of factors' which contribute to the high incidence of malnutrition, springs from her use of the survey method to establish correlations

between variables. Habermas would argue that the experimental (or survey) method, which is aimed at establishing correlations between variables, inevitably leads to the conclusion that there are factors in society which can be isolated as the cause or causes of certain effects, and that the problem can be dealt with by tackling the immediate causes thereof. In this case the survey method examined variables such as 'whereabouts of father', 'shopping facilities', etc, and was aimed at discovering which among these chosen variables was included in the 'diversity of factors' connected with malnutrition. Habermas would argue that this type of modus operandi of sociologists necessarily results in particular variables being seen as responsible for the presence of certain effects; that is, necessarily results in what Harris calls:

> breaking down problems (such as malnutrition) into units which can be dealt with in isolation; rather than synthesizing problems so that they can be seen as coherently related to each other and open to a single solution (such as nationalizing all private enterprise) (1971: 211).

Harris, like Habermas, claims that it is analytical-empirical methological principles which result in the failure of researchers to regard a particular problem, such as malnutrition, as merely "one symptom of a general crisis in society, the solution to which is only to be found in a general solution" (1971: 212). According to Harris and Habermas, the empirical-analytical methology compels concentration on the particular problem in isolation from other problems in society, and with disregard for the 'general crisis' in society. The methodology is unable to tackle particular problems as manifestations of a 'universal' societal crisis.

Although I agree with Harris and Habermas that Clarke's project does treat the problem of malnutrition as

"isolated and suitable for direct solution" (Harris, 1971: 212) and does not consider the structures of capitalism as having any bearing on the problem, I argue that Clarke's bias is due to her having concentrated on the particular relevant variables which she chose to examine. Clarke isolated variables such as 'whereabouts of father' and 'shopping facilities' as causative factors in the incidence of malnutrition, and she examined the correlations between these variables and malnutrition. I argue that, using the analytical-empirical methodology, a researcher could choose to isolate the social organisation of capitalism as a relevant variable having a bearing on the problem of malnutrition. There is no intrinsic feature of the analytical-empirical methology which forbids a consideration of capitalist structures when examining the causal factors related to, or necessary and sufficient conditions for, the incidence and/or degree of malnutrition. Clarke's inability to 'move outwards' and 'generalise rapidly' (Harris, 1971: 212) from the problem of malnutrition to the social organisation of capitalism, was due to her failure to consider capitalism as a variable relevant to the problem of malnutrition; it was not due to the fact that she was using an empirical-analytical methological procedure.

SCIENTIFIC AND MORAL TRUTH

My analysis of research projects I and II indicates that they are one-sidedly biased and limited insofar as they serve piecemeal engineering goals without considering the rationality of the radical alternative. In terms of my proposed definitions of truth and ideology - which embody a conventionalist relativism - the research projects can be characterised as scientifically and morally fallacious: They are scientifically fallacious because they hamper the scientific community's exploration of alternative uses and

range of application of its concepts; they hamper the development of social science in the direction of examining the applicability of concepts and laws in non-capitalistic social conditions. Furthermore they are morally fallacious because they hamper the consensual negotiations of the moral community concerned with examining all possible routes toward increasing the justness of social institutions.

I thus accept Habermas and Marcuse's characterisation of these research projects as fallacious. But - contrary to Habermas and Marcuse - I do not regard them as absolutely fallacious. My argument is that the quest for absolute (descriptive and prescriptive) truth - which accompanies Habermas and Marcuse's objectivist epistemology - subverts the development of science as well as the development of ethics. It subverts the development of science as the knower attempts to justify his particular perception of essential truth to the exclusion of alternative perspectives, and to prove that his perception alone reflects reality. It subverts the development of ethics as the knower attempts to impose his particular moral judgments on the rest of the community, illegitimately regarding alternative viewpoints as morally irrelevant.

By characterising research projects I and II as fallacious, but only in a relative sense, I hope to demonstrate the extent of my agreement, but also disagreement, with Habermas and Marcuse's critique of such sociological research.

CONCLUSION

Chapter 5 represented an attempt to apply the arguments developed in the foregoing chapters, in the concrete context of sociological research. In the context of two sociological research pieces I examined the relevance of Habermas and Marcuse's critique of positivist objectivism. But I also

noted the danger of accepting Habermas and Marcuse's epistemological objectivism.

I indicated that positivism generates sociological research which is conservatively oriented to submitting to 'discovered' facts. The operational definitions of positivist empiricism do - as Habermas and Marcuse suggest - accompany a scientific and moral conservatism. But I demonstrated that this danger of positivist empiricism can be surmounted by accepting a conventionalist view of scientific concepts and laws. Because conventionalists see concepts and laws as heuristic devices which play a part in constituting social reality, they are not committed to the 'discovered' actualities to which these concepts and laws apply. Their subjectivist epistemology and ontology gear them towards actively generating novel concepts and exploring the applicability of these concepts in novel empirical circumstances.

Because they do not regard their concepts as passive reflectors of 'reality', conventionalist researchers become active agents contributing to the flux of the world; the knower's recognition of his power to change the (current) world is given in his active epistemological relation to the world. Futhermore, the ontology of conventionalism implies that the given actualities which are 'discovered' are not regarded as objective facts to be reckoned with. 'Reality' is as temporary and subjective as are the concepts used to grasp it. Thus, although conventionalists define their concepts operationally in terms of definite empirical recognitors, this does not imply that their thought structures are imprisoned by the present actualities. The potency to generate future alternative actualities is implied in the definition of 'actuality' as (partially) subjective current 'reality'.

As conventionalism is able to surmount the conservative implications of the positivist epistemology and ontology, so it is able to surmount the dangers of Habermas and

Marcuse's epistemological objectivism. Habermas and Marcuse's epistemological objectivism consists in their belief that absolutely true sociological knowledge can be generated when the descriptive and prescriptive moments of sociological language become united, that is, when the descriptive perception of the facts of social life, is accompanied by a critical appraisal thereof. But the dangerous consequence of linking facts and values in this way in order to claim the absolute validity of ones knowledge of social life, is the ultimate resort to dogmatism, for there is no way of proving that ones knowledge of social life is absolutely true: Thus Marcuse's resort to essential definitions in his attempt to justify a particular moral course of action, merely relocates the problematic nature of his particular moral judgments, as the definitions of essences are themselves problematic. Likewise Habermas' resort to descriptive facts about the totality, in order to justify his judgments concerning human emancipation, is also problematic: It eliminates the piecemeal engineering alternative without being able to conclusively justify such an elimination. This alternative is absolutely eliminated on the grounds of a questionable assumption about the nature of the relation between facts and values.

Habermas and Marcuse's attempt to link social science and ethics in order to discover (simultaneous) descriptive and prescriptive truth, thus appears not only questionable, but also dangerous. It is in the light of these possible dangers that I suggested the acceptance of a conventionalist (relative) conception of scientific and moral truth.

GENERAL CONCLUDING NOTE

The thesis has taken the form of systematically uncovering the taken-for-granted assumptions of positivism and of Habermas and Marcuse's critique of positivism. Using the categories of ontological and epistemological objectivism and subjectivism, it was demonstrated that the ontological and epistemological assumptions of positivism and of Habermas and Marcuse, are questionable and unprovable.

It was argued that positivism is grounded in an ontological and epistemological objectivism and that it cannot effectively cope with the claims of those holding a subjectivist ontological and epistemological stance. Furthermore, it was demonstrated how Habermas' and Marcuse's positions are grounded in an epistemological objectivism and can be subjected to many of the criticisms which they themselves have levied against positivist objectivism.

In criticising the arguments of proponents of positivism and the arguments of Habermas and Marcuse I attempted to draw out the merits of the conventionalist ontological and epistemological stance, indicating why I regard conventionalism as a compelling alternative. The aim was not to present conventionalism as having the correct vision of truth and of reality. Rather the aim was to demonstrate the naïvity in attempting to prove the absolute correctness of any vision, in the face of viable alternatives. It was in the light of the demonstrated inability of positivism and of Habermas and Marcuse to prove the validity of their particular visions of truth and reality, that I suggested the adoption of a conventionalist stance. I suggested that conventionalism be adopted not because it is correct - a fact which cannot be conclusively proven - but because it provides a (partial) solution to the problem of human communication and negotiation in the face of competing perspectival visions.

The last chapter was meant to demonstrate both the viability and superiority of conventionalism in the context of two pieces of sociological research. The way in which sociologists with a conventionalist self-understanding would undertake sociological research, and the way in which they would regard sociology's relation to ethics, was examined. The aim here was to indicate that a conventionalism in sociology would surpass the dangers of positivist objectivism - which Habermas and Marcuse have legitimately located - while also surpassing the dangers of Habermas and Marcuse's position. My suggestion was that the acceptance of the conventionalist conception of scientific and moral truth could enrich both sociology and ethics. It is by virtue of this possible enrichment that I exhort the adoption of conventionalism.

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