R2 ,

If I believed in the imminent collapse of capitalism from forces internal to the economy (falling rate of profit etc), then my <u>evaluation</u> of movements would be affected by this. But Hindess and Hirst, while pointing this out, insist that my calculation of <u>consequences</u> is itself a function of my political position (evaluation). So we are in a messy circle. Contrary to them, it might be thought vital for political activity that predictions be minimally contaminated by wishes ('pessimism of the intellect': Gramsci). Here again Hindess and Hirst's contempt for empirical reason lands them in gross subjectivism - a politics of wish-fulfilment

'R1

Hindess and Hirst are right to stress the distinction between the ORIGIN and the political tendency of ideas and ideologies, and right to highlight the double talk that has tried to conceal this distinction in the name of preserving dogmatic versions of 'class analysis'. But they offer a pragmatist reductionism in place of a class-origin reductionism. Thus, for example, in denying that 'bourgeois ideology' is 'bourgeois' in virtue of its origins they <u>rule out</u> of account the possibility that some aspects of the bourgeoisie's class outlook might be progressive even true. Or rather they, insist on their own doubletalk which would <u>deny</u>'its bourgeois status, in virtue of its supposed serviceability to socialist revolution.

Generally speaking, a pragmatist reduction fails to avoid the epistemic issue. For the question always arises: will this line have these (desirable or undesirable) effects? (See my reply to Peter Binns RP3; and see Andrew Collier's 'Truth and Practice' RP5). Moreover, a politics, which not only downgrades questions of truth (Machiavellianism) but systematically seeks to extrude such issues from its frame of reference, must, I suggest, be a politics of contempt - a practical anti-humanism. The extrusion can never be achieved. Always it will be a matter of hiding uncomfortable truths or promulgating useful fictions. It is handy, however, to think that, outside one's system, no justification need be sought for one's beliefs and one's practices.

IN DEFENCE OF EPISTEMOLOGY

Andrew Collier

My aim in this paper is to criticise a post-Althusserian tendency which urges us to ditch the whole project of epistemology; I shall also say something about the conditions for an epistemology which will not lay itself open to the objections raised against epistemology by this tendency insofar as those objections are valid. And I shall make some brief comments about some of the outstanding problems for an epistemology which is to cope with the human sciences - problems which are not made to disappear, but merely evaded, by the rejection of epistemology.

My task is therefore a polemical one - the defence of what I regard as already established positions of materialist epistemology, against new versions of idealism, albeit shamefaced (or as they say in the trade, 'de-negated') versions. (1)

1) Epistemology after Althusser

'The identification of which I spoke in introducing (the Hegelian Marxists') work - of the problem of the unity of theory and practice and the problem of the relation between science and its object is an invalid and illicit conflation of questions of quite a different order. The first problem is the fundamental problem of Marxist politics: how to give ideas a material force.... The second problem is an epistemological one: how to guaran-

What is most disconcerting is that modern idealists are not only unaware that their sophisms have long since been refuted; they are even unaware that they are idealists. Who can doubt that, if Bishop Berkeley had been alive today, he would have re-titled his major work 'Towards a Materialist Theory of Perception'? tee that a theory does in fact provide a knowledge of the reality it claims to explain.' (Alex Callinicos, <u>Althusser's Marxism</u>, pp22-23)

Part of the value of Althusser's work in epistemology is that he has cleared up this 'historical' confusion. Theoretical production is itself a practice with its own criteria of success, not a mere effect of other - economic, political or ideological practices. The political question is then, not the relation of theory-in-general to practice-in-general, but rather the problem: how to secure the transformation of the 'political' practice of class struggle from an economistic and reformist one (which it will spontaneously tend to be) into one which raises the issue of state power, through the intervention of Marxist theory into that practice. In this context, for Althusser as for Lenin, the unity of theory and practice is not a theoretical given but a practical task. The Marxist theory which must be united with the class struggle is not itself a mere epiphenomenon of that struggle; its relation to the struggle is that it yields knowledge of the society that generates it; and because it does so it enables the workers' movement to fight clearsightedly, without the blinkers of bourgeois ideology.

Yet, surprisingly enough, Callinicos goes on to criticise Althusser for not realising that he has provided the basis for abolishing epistemology altogether. If he has done so, what comes of his anti-historicist work which took place within epistemology?

There seem to be three points of departure for the anti-epistemologists in Althusser's thought. Firstly there is his contention - through all phases of his work - that the criteria of validity of a theoretical practice are internal to it. This is said to rule out any general criterion; and epistemology is said to be precisely the pursuit of general criteria. Here

I I admit to feeling that it is somewhat shameful to be re-iterating this position at a time when we need to break new ground in scientific epistemology, and when philosophers such as Roy Bhaskar are doing so. But it is a shameful necessity, for while idealism enjoys a revival unparallelled since Edwardian times - and precisely among self-styled radicals - really new knowledge will be prevented from having the political effects that it deserves.

I think a correct point and an incorrect one have been confused. It is perfectly true that the procedures of validation are quite different in different sciences; one doesn't prove propositions of chemist. ry, evolutionary biology and linguistics in the same way. But in each case what the science aims at is knowledge of its object; the differences stem from the differences in the objects; what the sciences share is that they are all attempts to get at the truth about their respective objects. In their timehonoured formula, they aim to produce a theory which corresponds to its object. And the nature of their procedures will be determined by this project. This is important because there are theories whose procedures recognise no such constraints, and we need to distinguish between these pseudo-sciences (astrology, palmistry, etc) and genuine sciences.

Secondly, there is Althusser's definition of philosophy as 'class struggle in theory'. With this definition Althusser rightly repudiates his earlier view that philosophy can be a sort of masterscience, 'the theory of theoretical practice'. But this is not a rejection of epistemology; it emphatically doesn't mean that philosophy should abandon its commitment to objectivity. On the contrary, if it is partisan, it is the partisan of 'the materialist thesis of objectivity'. To defend the sciences is to engage in class struggle in theory, because 'true ideas always serve the people; false ideas always serve the enemies of the people' (Althusser, Lenin and Philosophy, p24). Only the exploiting classes can gain from ideological error and ideological obstacles on the path of the sciences. Hence philosophy still has the epistemological function of "'drawing a dividing line" inside the theoretical domain between ideas declared to be true and ideas declared to be false, between the scientific and the ideological' (Lenin and Philosophy, p61).

Thirdly, there is Althusser's Essays in Self-Criticism, where he does become embarrassed about his earlier epistemological terminology; but if he turns his back on epistemology here, it is to embrace historicism as a long-lost brother. So long lost perhaps that he fails to recognise him, but that shouldn't stop us from doing so. For in a cryptic footnote on p124, he tells us that a materialist interpretation of epistemology 'could lead us to study the material, social, political, ideological and philosophical conditions of the theoretical "modes of production" and "production processes" of already existing knowledge: but this would properly fall within the domain of Historical Materialism!' But Historical Materialism can only study science as ideology, and the results of such study will be strictly irrelevant to its truth.

For considered as one social practice among others, science can indeed legitimately be studied as ideology, as located in the superstructure where else? The ideological roots of the discoveries of Newton or Darwin or Marx or Freud can be laid bare without invalidating those discoveries. The science/ideology distinction is an epistemological one, not a social one (2).

It is extraordinary how strong is the prejudice that if one practice can be known by virtue of another, the former loses its autonomy and is explained away by the other. I can only assume that there is some primaryprocess thinking here - perhaps an infantile identification of knowledge with eating.



It is impossible to think the relation of science to other social practices by means of the concept of relative autonomy. Considered as one social practice among others, with miscellaneous economic, political and ideological relations to other social practices, science has no special autonomous status. Considered as the appropriation of the real in objective knowledge, however, it is radically and categorically autonomous. For as such it is defined by its norm of correspondence to the real, and insofar as it achieves this norm, it succeeds, whatever its genealogy. Insofar as we want to know about the reality of which a science speaks, the social, psychological and linguistic accidents concerning the practice of that science are simply of no interest, any more than the colour of the scientists' hair. It is therefore as true and as misleading to say that a science is also an ideology as to say that a human being is a pile of chemicals or that Beethoven's ninth symphony is a succession of noises. And indeed as false, remembering that the same human individual will be at different times composed of different molecules, and that many successions of noises have been performances of Beethoven's Ninth. Scientific knowledge doesn't change its nature when the writings embodying it are translated from German into English, or when it is applied in the service of the proletariat rather than the bourgeoisie, or when the experiments that test it are performed in Peking instead of New York. The reduction of science to ideology is not a misidentification of a social institution, it is a category-mistake.

But that itsn't the end of this shocking affair, for if Historical Materialism were granted the right to pass judgement on the sciences by virtue of the fact that they fall within its object as social practices, the other sciences could claim equal credentials for the role of master-science. Psychology, because the thinking of scientists, like any other mental process, is subject to its laws; linguistics, because scientific discourse is produced in accordance with the rules of language; logic, whose laws it must obey if it is to be coherent thought; evolutionary biology, for the capacity for scientific discovery is an adaptive species-specific trait of human beings; and - to reduce the whole thing to its absurdity - physics, because scientists, laboratories, textbooks etc are after all composed of atoms.

So the requisite critique of Althusser's epistemology can't be that which he himself provides; he exorcises one devil - 'theoreticism' - that seven devils may enter. Rather, the critique should be

² Althusser does place science outside the superstructure. But it is not necessary to do so in order to avoid historicism, as I hope my next paragraph shows. The 'scientific community', its institutions and practices, its relation with various state and economic apparatuses etc are quite obviously part of the social formation in question, and as such part of the object of historical materialism. I am sure that Althusser did not intend his denial of science's place in the superstructure to deny this, but it can only give that impression. When he finally asserts it, it is to sell the mass to historicism.

directed at what Timpanaro calls his 'Platonism', and should reinstate the notion of putting questions to nature (3) as the characteristic of scientific enquiry. Because this notion involves the idea that the results of scientific validation-procedures must be causally dependent on the nature of the real object, it may appear to fall under Althusser's fire against genetic accounts of knowledge. Althusser's anti-geneticism is quite correct; it is a mistake to try to determine the nature of something by reference to its past history (cf. 'degenerate workers' states'). Experiments though are not necessarily the means by which scientific theories originate; but they are the means by which they are tested, and as such belong to the 'synchronic structure' of a science. In the final section of this essay I shall say something about the problem of applying such a notion in the human sciences. First I shall consider an alternative line of 'immanent critique' of Althusser - one which moves further still from the taint of the empirical, and compounds Platonism with Kantianism.

2) Road to Kaliningrad

'Lenin criticizes Kant's subjectivism in the name of a materialist thesis which is a thesis conjointly of (material) existence and of (scientific) objectivity.'

(Althusser, Lenin and Philosophy, p114)

'There is no question here of whether <u>objects of</u> <u>discourse</u> exist independently of the discourses which specify them. Objects of discourse do not exist at all in that sense: they are constituted in and through the discourses which refer to them. The distinction/correlation structure of epistemology depends on the conception of objects existing independently of knowledge yet in forms appropriate to knowledge itself. To deny that conception is to reject epistemology and the field of problems defined within it.

(Cutler, Hindess, Hirst and Hussain, <u>Marx's</u> '<u>Capital' and Capitalism_Today</u>, pp216-17)

<u>Marx's 'Capital' and Capitalism Today</u> is a book by four Marxists which rejects almost every main Marxist idea: the theory of value, exploitation (in the classical Marxist sense), laws of tendency, the possibility of correspondence or non-correspondence between forces and relations of production (the central dialectical discovery of Marx), modes of production, structural causality, the determinance in the last instance of the economic structure, politics as class struggle, the distinction between reform and revolution, and (though in a rather tongue-in-cheek sense) the possibility of a classless society.

As far as I can tell, the only survivors of this epistemological holocaust are: classes, defined by the relation of possession or separation between the economic agents and the means of production; and the methodological principle of rejecting explana-

If testing is a rational procedure then there must be an a-theoretical mode of observation governed by a pre-established harmony between language and the real. To maintain, as Popper does, both the rationality of testing and the thesis that observation is an interpretation in the light of a theory is to collapse into a manifest and absurd contradiction." (Hindess, <u>Philosophy and Methodology in the Social Sciences</u>, p186) This reasare. I take it, is meant to be a complete argument, not just a

(Hindess, <u>Philosophy and Methodology in the Social Sciences</u>, p186) This passage, I take it, is meant to be a complete argument, not just a step in one. It is supposed to be <u>manifestly</u> incoherent both to recognise that there are no theory-independent observation-statements, and at the same time to test the theory by reference to observations (experiments). This would only be true if the theory determined, not only the nature of the experiment and the way the result is interpreted, but the result itself. tions of historical processes in terms of the will and consciousness of agents. These survivors are certainly crucial parts of Marxist theory, but hardly peculiar to it, and not conjointly sufficient to distinguish Marxist practices - either theoretical or political - from many others.

Such a drastic revision ought not to be ruled out <u>a priori</u>. It would, I believe, be more accurate to call it an abandonment of Marxism rather than a revision of it, but it would be dogmatic to refuse to consider this possibility. If Marxism will not stand up to scrutiny, or does not give us the best available account of the workings of society, it should be rejected. Such rejection would not necessarily lead to the abandonment of socialist politics, any more than the replacement of Newtonian science by Einsteinian undermined technology - on the contrary, it made new practices possible within it. It can't be ruled out in principle that Marxism will be replaced by a superior scientific theory on which an improved strategy for the workers' movement could be based.

But it seems to me that the common element of their critique of these diverse concepts is the idea that classical Marxism is essentialist; this essentialism is seen as flowing from a rationalist epistemology; and this epistemology is rejected, not in favour of Humean empiricism (the only alternative epistemology of which they seem able to conceive) but in favour of no epistemology at all. I will argue that classical Marxism is not essentialist, rationalist or indeed empiricist, but represents a genuine breakthrough to a materialist epistemology, and that the rejection of epistemology leads these authors to a rather extreme form of idealism.

First let us look at their criticism of some specific Marxist concepts:

(a) The labour theory of value:

The point of this theory is not, I take it, primarily to explain the prices of commodities, but to give an account of the necessity for a proportionate distribution of social labour, and the various mechanisms specific to various modes of production, by which equilibrium in this distribution can be restored. I shall therefore proceed straight to their criticisms of this aspect of the theory.

It is just the concept of equilibrium that they dislike most, both in the work of Rudolf Hilferding and in that of I.I. Rubin. There is something of an attitude of 'heads I win, tails you lose' in their treatment of the respective arguments of these two Marxist political economists; also a sort of conceptual witch-hunting technique of guilt-by-association.

The concept 'equilibrium', it seems, has suckled two devils: economism and teleology.

'In the concept of "equilibrium" we see the economistic hope of an end to capitalist relations of production. "Equilibrium", the state of capitalism's vitality, is also the threat of its death.

Should equilibrium conditions be threatened, systematic non-reproduction is possible, a systematic non-reproduction which undermines the relations of production. This fantasy is the dark side of a functionalism - the death that awaits the organism if its vital mechanisms are inhibited.' (p71)

I would hate to see this style of argument generalised. Consider the following:

Fred: Man must eat before he can think.

Joe: You are a Heideggerian! I shall prove it! He who speaks of the necessity of eating, admits the possibility of starving to death.

³ The idea of putting questions to nature doesn't presuppose that nature has her own language in which to answer, independent of our theories. Much of the anti-epistemological case rests on the unargued assumption that it does. For instance:

Hence your whole philosophy is based on anxiety in the face of death. Ergo: You are a Heideggerian. Q.E.D. Take him away and cut his concepts off!

But people who talk of equilibrium generally believe that it can indeed be disturbed (what's happening to the economy now, comrades?), but also that a new equilibrium can often be established. They are in no way committed to the idea of a 'terminal crisis'. And even if they were, they would not be committed to the idea that such a crisis would lead to the supersession of capitalism without political struggle, as is insinuated later in the same passage (cf. Norman Geras's excellent exposition of Luxemburg's theory of the collapse of capitalism and the historical alternatives of socialism or barbarism, in his book <u>The Legacy of Rosa</u> <u>Luxemburg</u>).

But the idea that there are mechanisms for the reestablishment of equilibrium is treated as equally flawed - this time because it is 'teleologicalfunctionalist'. In their discussion of Rubin, they tell us:

'This variant of the Marxist theory posits a functionalism (a certain composition is necessary in an economy, this composition regulates production) and then makes <u>any</u> working economy exhibit this functionality (it must have a composition structure since production <u>must</u> be regulated - these goods would not be bought if they were not use-values).' (p87)

What these gentlemen lack is dialectics.' The only concept of a totality of which they seem capable of conceiving, is of one which excludes dysfunctional aspects, which, in short, cannot generate contradictions. Either teleology is in its heaven and all's well with the economy, or there can be no selfregulating mechanisms, and every crisis is terminal. Yet the Marxist dialectic is nothing if not a theory of structures which reproduce themselves without teleology, and generate dysfunctions which can be contained but not eliminated within the structure (4).

My accusation is not the dogmatic one of infidelity to Marx, but that they fail even to consider a central Marxian theoretical innovation as a possibility. It seems to be necessary to remind these epigoni of <u>Theoretical Practice</u> that there is such a thing as a 'de-centred structure-in-dominance'.

(b) <u>Hunting the trans-historical subject</u>: This treatment of equilibrium-theory as a theory of economic systems as expressive totalities (for that is what is going on) is an instance of a more general tendency to read Marx in essentialist terms, and reject his theories about society on the ground that their alleged essentialist premises must be rejected.

Thus the 'laws of tendency' of capitalism and the succession of modes of production are seen as instances of an essential tendency of mankind to progress, to develop its productive forces; this is traced to a 'trans-historical subject' and myths of the self production of man etc. Cutler et al quite rightly feel that there is no longer any need to argue against these myths, and that doctrines which stand or fall with them - must fall. But they fail to show that Marx does start from these premisses. Capitalism develops the forces of production because of a dynamic internal to its structure, not because it is one avatar of an inherently self-developing Eternal Man. There are in each case specific reasons why particular modes of production generate the forces which make possible transition to particular other

modes of production - e.g. feudalism to capitalism or capitalism to socialism. It was only when, in <u>The German Ideology</u>, they decisively - not to say contemptuously - turned their backs on selfproducing subjects etc, that Marx and Engels were able to formulate the materialist conception of history as a research programme.

The <u>a priori</u> determination of Cutler <u>et al</u> to find essentialism in Marx perhaps stems from a tendency to push the epistemological break further and further forward until it postdates the deaths of Marx, Engels and probably Lenin, and perhaps shifts out of history altogether, into eschatology. Of course, they don't deny that there are places in Marx's writings where he says things incompatible with essentialism and the consequent unilinear conception of progress in history, and it is this side of his thought that they wish to develop. But in interpreting his central concepts, they impute essentialism on the slenderest evidence.

Perhaps the most serious political consequence of this approach is the rejection of the analysis of politics in terms of class struggle, for if such an analysis is misconceived it is difficult to see how Marxism is an advance over utopian socialism. They seem to be claiming that political movements could represent classes only as expressions of the will of those classes, not as complex effects of economic class struggle. It is a repetition of a mistake which has arisen before in connection with the Marxist theory of the state. Marx and Engels had (in the Communist Manifesto) said of certain states - namely the constitutional states based on limited suffrage which existed in the most advanced countries at the time of writing - that 'The executive of the modern state is but a committee for managing the common affairs of the whole bourgeoisie'. Some have taken this as a general theory of states as purpose-built instruments in the collective hands of the ruling class, but it is not so. Marx's analysis of France under the second empire, or of Germany under the Prussian monarchy, show the possibility of forms of state which, while they are effects of the class structure and the struggle it generates, and while they necessarily serve to perpetuate the economic power of the possessing classes, are not related to the ruling class in this way.

The relation of parties to class struggle is similar. The British Labour Party, for instance, does not represent the will of any class. It tries to resolve economic class struggle in a particular manner, determined by the effects of various economic class forces upon it (through its need to retain its trade union base, appease petty bourgeois 'public opinion' for electoral reasons, co-operate with monopoly capital in the management of the economy, etc). In doing so, it serves the needs of 'the bourgeoisie in preserving capitalism.

It is not, then, always possible to map parties onto the classes they represent, but this doesn't mean we have to see them as a plurality of pressure groups with no closer connection to the class struggle than the anti-vivisection society. The assumption that it does stems from a wrong posing of the problem. It is posed in terms of the unity of



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⁴ There are, of course, homoeostatic mechanisms in nature. I wonder if these authors would regard them as teleological, or pretend they don't exist.

classes at the economic, political and ideological levels. But such unity does not necessarily exist -Marxism has never claimed that it did. It is normally only in revolutionary situations that economic classes close their ranks and act as collective historical agents. But economic struggle goes on all the time.

Classical Marxism (5) certainly defines classes in economic terms (<u>pace</u> Poulantzas), but it was never asserted that classes so defined would necessarily cohere at the political and ideological levels. Rather, the organisation of the working class as a political unity was to be the result of a protracted ideological struggle, by which the economic struggle which <u>is</u> given as a spontaneous effect of capitalist class-relations would be transformed into a struggle with revolutionary political objectives.

But for Cutler <u>et al</u> this original discrepancy between economic and political class organisation is a theoretical problem rather than a practical one. Either it is a matter of a discrepancy between objective interest and subjective consciousness of that interest, or the failure to develop a political class consciousness is itself an effect of the structure, determined in the last instance by the economy itself. In the first case, individual subjectivity is given an explanatory role, and no account is given of why other communal interest groups should not take precedence over class loyalties. In the second case, we are committed to a structural causality which, we are assured, is essentialist.

Why the recognition of the discrepancy between class interest and political class consciousness should lead to 'subjectivism' we are not told. Could it not be explained by an objective but non-economistic theory of ideology? Perhaps, granted such a theory, we are back on the ground of Althusserian structural causality; but then what is essentialist about such a position? We are told it is functionalist - ideology is produced because the reproduction of the economic structure requires it. This may be a valid criticism of Althusser's paper on Ideology and the State (in Lenin and Philosophy) of which I have argued elsewhere that it depicts the production of ideology as 'a conspiracy without a subject'. But such functionalism is not a necessary consequence of any scientific account of ideology. It is possible to recognise that capitalism produces dysfunctional ideological formations (e.g. Marxism) and that the production of ideas in bourgeois society is as chaotic and unplanned as is material production, without leaving anything to subjective arbitrariness. Certainly ideology does, overall, serve to make possible the reproduction of capitalist classrelations - insofar as it doesn't, there is ideological crisis. But the evolution of ideologies is Darwinian, not Lamarckian.

But all these attributions of some form of subjectivism to Marx or other Marxists (whether the 'subjects' involved are de-historicised individual subjects or a trans-historical Absolute Subject), are 'must have' arguments: Marx <u>must have</u> assumed this that or the other thing (which he would not have admitted to assuming). In such cases it is useful to ask whether there is some other explanation of his position - and there is.

Cutler <u>et al</u> don't really consider the possibility of an objective, materialist theory of subjectivity, which neither ignores the fact of human subjectivity nor treats it as an irreducible datum. Yet classical Marxism has always assumed the possibility of such a theory, and although there is much work to be done in this field, there is some reason to believe that Marxism, with a little help from its psychoanalytical friends, will be able to achieve this.

But this neglect is an instance of an approach on the part of these authors which makes all that is original in Marxism invisible to them - their interpretation of any structure, any interconnected whole, as an expressive totality, of the sort that Althusser identifies in Hegel and the Hegelian Marxists.

(c) Expressive totalities and determination in the last instance:

Pre-Marxian thought - with the possible exception of Spinoza - conceives of the ultimate structure of reality, whether physical or social, in one of two ways: either as the mechanistic interaction of atoms, themselves unstructured; or as forming a whole or wholes in which the parts had no autonomy, their nature following from the nature of the whole. The former was the view of 17th and 18th century empiricism and materialism, the latter of Leibniz and Hegel, with Kant representing a mixed position. In order to conceive of social structures in a materialist way, it was necessary to reject both atomism and holism, both of which depended on the idea of irreducible subjects (individual or Absolute), and neither of which could allow for the possibility of really existing conflicts, internal to and generated by the structure, yet threatening to destroy it.

For Marx, a social formation is a structure which is not the mere expression of its 'idea'; which has no centre, no purpose, no directing agency; which determines the social nature of its elements, <u>and</u> the contradictions between them. Its elements double as material beings subject to the laws of their own material nature, and as terms of social relations in which they occupy definite roles generated by the structure. There are various interlocking sub-structures whose nature cannot be read off from the overall structure.

Marx's achievement in theorising this type of structure is marked by Althusser's concept of a 'de-centred structure-in-dominance', as contrasted with the 'expressive totality' of the idealists. Althusser points out that the metaphor of 'inverting' Hegel is inadequate. A society is not a mere expression of its economic structure, as according to Hegel it is an expression of its 'Idea'. Over-literal interpretation of the inversion of Hegel leads at once to mechanistic-economistic distortions of historical materialism, and the repetition of idealist philosophical positions.

All these points, I had thought, were bridges burnt behind us (6).

But no. We are now assured that the only way to conceive of the effectivity of a structure on its elements is in terms of an expressive totality which constitutes them; and that the economic structure cannot be determinant in the last instance

⁵ This intentionally vague term is intended to include at least the mature Marx, Engels, Lenin, Luxemburg and Trotsky; and to exclude historicist Marxism, whether of the Stalinist variety (Soviet Marxism in the 30s and 40s was profoundly historicist), or the western Hegelian variety (Korsch, Lukacs, Gramsci, the Frankfurt School, Sartre).

⁶ It might be thought by 'humanistic' Marxists that there is an alternative to Hegelian and atomistic social explanations, other than the one that I defend here - namely, that the explanatory structures of capitalist society are 'reified praxis'. In that case I would want to know: How does this praxis get reified? Is it self-reifying? In that case we are back with Hegel; and the objectivity, 'coefficient of adversity' and sheer cussedness of capitalist reality are not given their due. Is it the activity of the capitalists that reifies the praxis of the workers? In that case, we would be back with an atomistic account of some individuals oppressing others; unless this is a way of saying that the structure of capitalist society (which constitutes the capitalists as capitalists) has this effect. But in that case we are back with the notion of an objective structure, independent of the will and consciousness of individuals; which is the concept I am defending.

On the misuse of the word 'reification', see note (11) below.

within the social structure, unless the superstructure is a mere epiphenomenon of it.

At this point one might be forgiven for thinking that we are going to be treated to a materialist version of methodological individualism: come back Hobbes, all forgiven.

Wrong again! We are told that this essentialism springs from a rationalist epistemology, and atomism from an empiricist epistemology. These are seen as the only alternative types of epistemology, and both wrong. It remains to be seen what alternative mode of seeing society springs from - no epistemology at all.

The argument is set out most clearly on pp213-14:

'It should be noted that the different epistemological conceptions of the relation between discourse and its objects entail different conceptions of the relation between objects themselves.' For empiricism.

'Relations between objects ... can only be conceived as given in experience itself. The classical empiricist conception of relations between objects is therefore in terms of a mechanical, external causality representing nothing more than the existence of regular and recurrent correlations between observed phenomena.'

'In the rationalist epistemology, on the other hand, where the world is conceived as a rational order, concepts give the essence of the real and relations between concepts therefore represent the essential form of the relations between objects. The classical rationalist conception of relations between objects is therefore in terms of an expressed causality, an internal relation between an essence and the phenomenal forms of its appearance. These relations between objects may be established through purely theoretical argument.'

I shall not stop to dwell on the fact that there is a great deal of work in the field of scientific epistemology that is neither rationalist nor empiricist in these senses. Philosophy has not stood still since Leibniz and Hume. It is not only Marxists, either, who have transcended this alternative.



It is difficult to fit even Engels's statement that materialism means presenting the facts in their real and not an imagined connection, into this schema. The reference made in the same passage as the last quotes, to the thesis of determination in the last instance as 'regarded by classical Marxism as beyond any merely empirical refutation' is astounding; if anyone can produce a single passage written by a 'classical Marxist' to substantiate this, I would be prepared to hang a portrait of Sir Karl Popper on my lavatory wall. But perhaps the best text to look at is Marx's 1857 introduction, and ask of it: Is classical Marxism rationalist and essentialist?; and: Are the only alternatives to rationalism, empiricism or no epistemology at all? Short as this text is, it contains enough pointers to keep us clear of the main errors in the field of epistemology - I shall quote enough of it to make this evident, I hope.

One word of warning. It is thanks to Althusser and his followers that this text owes its justifiably high reputation in modern Marxist epistemology. But that should not lead us to read the whole of Althusser's epistemology into this text - he deserves some credit for his originality, but also for leading us up some original blind alleys.

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'Thus, if I were to begin with the population, this would be a chaotic conception of the whole, and I would then, by means of further determination, move analytically towards ever more simple concepts, from the imagined concrete towards ever thinner abstractions until I had arrived at the simplest determinations. From there the journey would have to be retraced until I (had finally arrived at the population again,

- (i) but this time not as the chaotic conception of a whole, but as a rich totality of many determinations and relations. The former is the path historically followed by economics at the time of its origins.' 'The latter is obviously the scientifically correct method. The concrete is concrete
- (ii) because it is the concentration of many determinations, hence unity of the diverse. It appears in the process of thinking, therefore, as a process of concentration, as a result, not as a point of departure, even though it is the point of departure in reality
- (iii) and hence also the point of departure for observation and conception. Along the first path the full conception was evaporated to yield an abstract determination; along the
- (iv) second, the abstract determinations lead towards a reproduction of the concrete by way of thought. In this way Hegel fell into the
- (v) illusion of conceiving the real as the product of thought....' 'Therefore, to the kind of consciousness and this is characteristic of the philosophical consciousness - for which conceptual
- (vi) thinking is the real human being, and for which the conceptual world as such is thus the only reality, the movement of the categories appears as the real act of production - which only, unfortunately, receives a jolt from outside - whose product is the world; and - but this is again a tautology - this is correct in so far as the concrete totality is a totality of thoughts, concrete in thought, in fact a product of thinking and comprehending; but not in any way a product of the concept which thinks and generates itself outside or above observation and concep-
- (vii) tion; a product, rather, of the working up of observation and conception into concepts. "The real subject retains its autonomous existence outside the head just as before; namely as long as the head's conduct is
- (viii) { merely speculative, merely theoretical. Hence, in the theoretical method, too, the subject, society, must always be kept in mind as the presupposition.' (Grundrisse, pp100-02. Emphasis mine

throughout - A.C.)

From this we may gather the following:

(A) Knowledge is not a passive reflection of reality, impressed automatically on our minds; it is a product of a human activity: (i), (iv), (vii) . Hence we are set on the road of a scientific epistemology, not an empiricist one.

This has misled the rationalists and idealists (B) into thinking that, because science is our work, its objects are products of our minds: (v), (vi). But it is not so; the real world exists prior to and independently of thought, and remains what it was after thought has replicated it: (iii), (vii), (viii). Thus, what Bhaskar calls the intransitive object of science is recognised (see below).

(C) The aim of science remains to replicate just this independent reality in thought, so it must constantly refer back to the reality that it is trying to replicate: (iii), (iv), (vii), (viii). Thus thought aims to correspond with its object, and is judged according to its success in so doing.

(D) In order to achieve adequacy to reality, science must reconstruct the many-sided concreteness of that reality by means of abstract concepts, brought into an interconnected structure; and by means of such interconnectedness of these concepts, there is reproduced in thought the complex inner structuredness of the concrete reality of which that thought is seeking to produce knowledge: (i), (ii) .

So that, if thought must deal in 'essences' by virtue of its work of abstraction, it must bring together a complex multiplicity of these if it is to reproduce in thought the richness of concrete reality.

(E) The abstractions of science reflect aspects of reality - the 'many determinations' of which the concrete is the concentration: (ii) . So these abstractions are not arbitrary, and their appearance in the final product of science, the 'concrete in thought', is not as impositions of ours, but as the concepts of determinations discovered by us in reality (insofar, that is, as the thought really is adequate to its object).

We have here, then, a sketch for an epistemology which has radically broken with both rationalism and empiricism, and which is thoroughly realist in its ontological assumptions and experimental in its method - in short, which is scientific and materialist.

It is clear that there is no tendency here to project onto reality the relations between concepts. Rather, the relations between concepts, though they may seem to be 'conceptual relations', definitional, deductive and so on, are actually attempts to match the relations between real 'determinations' which conjointly constitute concrete reality. Thus, the formulae of science, whether $'E=mc^{2}'$ or the equations of Capital, give knowledge of forces existing independently and outside of thought.

Insofar as they fail to match them, they have to be abandoned and new formulae constructed. The formulae may seem to be definitions, but their terms acquire their meaning in the totality of the theory and practice of the science concerned, not merely from the formulae themselves.

Thus the 'method of presentation' may look as if it is essentialist, but the 'method of inquiry' is far from rationalist.

'Of course the method of presentation must differ in form from that of inquiry. The latter has to appropriate the material in detail, to analyse its different forms of development and to track down

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their inner connection. Only after this work has been done can the real movement be appropriately presented. If this is done successfully, if the life of the subject-matter is now reflected back in the ideas, then it may appear as if we have before us an <u>a priori</u> construction.'

(Marx, Preface to 2nd edition of <u>Capital</u> vol. I, p102)

This 'appearance' is common to all the sciences (see Bhaskar on the 'Leibnizian dimension' of science, in <u>A Realist Theory of Science</u>). The ontological assumption is not that real relations are structured like conceptual relations, but that relations between concepts can be made to map real relations.

At the same time it is clear that Marx doesn't share the conflation of epistemological and ontological questions which characterises empiricism, at least from Berkeley on. This 'epistemic fallacy' as Bhaskar calls it, consists essentially in the idea that truth must have a subject, that for p to be true, there must be an answer to the question: Who is to say that p? Bhaskar argues against this that it is necessary to distinguish what he calls the transitive object of science from its intransitive object. The intransitive object is the reality which science seeks to know, which pre-exists science and is unaffected by the knowledge which science requires of it; which science never fully appropriates, but acquires ever deeper knowledge of. The transitive object is the real as known by the science of a particular time. It is never assumed to be final and definitive appropriation, but it is aimed at deepening the knowledge of the intransitive object. Progress in science is essentially progress towards an ever closer approximation to objective truth.

Essentially, the intransitive object is Marx's 'real subject' (see (ii) above), or Althusser's 'real object'. Lenin marks the same distinction by the terms relative and absolute truth (<u>Materialism and</u> <u>Empirio-Criticism</u>).

In this way the implicit assumption of an original complicity between subject and object, which characterised both rationalism and empiricism, is overcome. Yet it is not assumed that the intransitive object is unknowable, only that progress in the knowledge of it is a never-ending process of approximation. If science doesn't yield knowledge of the real, it loses its point.

The authors of <u>Marx's 'Capital' and Capitalism</u> <u>Today</u>, however, have a different alternative to rationalism and empiricism, and an older one.

'Far from providing an external measure for discourse, the entities referred to in discourse are constituted solely in and through the forms of discourse in which they are specified. Objects of discourse cannot be specified extradiscursively...' (p216)

One might as well say: We can't talk about things without using words; therefore we can't talk about things at all, only about words. Or again: Our knowledge consists of ideas; therefore we can only know ideas. Not a bad effort this, as the speculations of a youthful future bishop. But hardly clever for four learned post-Althusserians.

Granted, there are two differences from Berkeley: ideas are conceived as linguistic realities, not as perceptual ones - this gives the whole thing a 20thcentury look. And it is not denied that there are things-in-themselves, only they would have to be unknowable. But such ideas also have been put forward before, and with a subtlety absent here - by Immanuel Kant. In the words of Cutler et al

'Now we have argued that the epistemological project is not a necessary one and that the relations between discourse and its objects does not need to be conceived in terms of both a distinction and a correlation between a realm of discourse and an independently existing realm of objects. But in the absence of such an epistemological conception it is no longer possible to conceive of objects existing outside of discourse (and represented in its basic concepts) as the measure of validity of discourse. On the contrary, in the absence of such specifiable yet extra-discursive objects the elements specified in discourse must be conceived solely in and through the forms of discourse in which they are constituted. What is specified in theoretical discourse cannot be specified extra-discursively: it can be conceived only through that discourse or a related, critical, or complementary one. ' (ibid, pp228-29)

Compare the following:

'What then, is to be understood when we speak of an object corresponding to, and consequently also distinct from, our knowledge? It is easily seen that this object must be thought only as something in general = x, since outside our knowledge we could have nothing which we could set over against this knowledge as corresponding to it.' (Kant, <u>Critique of Pure Reason</u>, p134)

'The difference is that Kant's thing-in-itself had the function of accounting for objectivity in appearance, for an element of passivity on the part of the knower in relation to the known, for an 'empirical realism' within a 'transcendental idealism'. In short, Kant had a 'grain of materialism', which these authors have cast away.

And no wonder, for what they denounce as 'epistemology' - the thesis that a discourse and its objects are distinct, yet discourse should seek to correspond to its object - this thesis is precisely materialist epistemology (7). The complicity of subject and object present in Descartes, Hume and others consists not in their idea that thought should correspond to its object, but in their failure to give adequate recognition to the distinctness of thought and object - i.e. not in their assertion of the second, but in their denial of the first postulate of materialist epistemology. In Descartes, and rationalism generally, this takes the form of the imposition by choice of method of substantive ontological conclusions - e.g. the distinctness of mind and body. In Berkeley, Hume and later empiricism, it takes the form of phenomenalism or some other form of neutral monism.

Yet the question remains: if we are to take the materialist epistemological option, are we not assuming that reality is, at least, knowable by us? Why should reality be knowable? Someone once said to me, when I was arguing that the distinctions made by science reflect real distinctions: 'You seem to be assuming that there is Joe Reality somewhere out there, making sure that things turn out alright.'

Indeed it is bound to <u>look as if</u> there is such a Being; because an unknowable universe - though there is nothing logically contradictory about such an idea - could not have given rise to beings who

⁷ I sometimes get the impression, from the manner and frequency with which they repeat this formula for epistemology as both distinctness and correspondence of the two realms, that they think that distinctness in itself precludes correspondence, and that the epistemological project therefore only has to be expressed this way in order to be refuted. This would be on a level with the idea that one can't have any knowledge of other people's mental states, as one can't introspect them.

can achieve knowledge, and who depend for their survival on such knowledge. In an unknowable universe, there would be no knowing subjects to know that it was unknowable.

It is a useful exercise for an epistemologist to reflect on the manner in which Darwin's theory dealt a death-blow to the idea of teleology in nature. There <u>appears to be</u> an 'original complicity' between species and their environment - because where the two are ill-suited, the species die out. Nature will always produce the appearance of design if it produces the appearance of anything, because where it doesn't produce that appearance, there will be nothing for it to appear to. There is no necessity about the knowability of nature, any more than about the existence of Descartes; but whenever Descartes thought he existed, he existed sure enough. And anyone who asks: Is the universe knowable? lives in a knowable universe alright.

If we return to Kant armed with these Darwinian insights, we can discard the transcendental idealist shell, and extract a very valuable kernel.

'Experience is itself a species of knowledge which involves understanding and understanding has rules which I must presuppose as being in me prior to objects being given to me, and therefore as being <u>a priori</u>. They find expression in <u>a</u> <u>priori</u> concepts to which all objects of experience necessarily conform, and with which they must agree.'

(Critique of Pure Reason, pp22-23)

Of course, we know that Kant thought that the understanding actively <u>imposed</u> its categories on the manifold of intuition, so that the 'must' at the end of the passage means: 'We have ways of making objects conform to our knowledge!' But we could make creative use of its ambiguity, and say: In order for empirical knowledge to be possible, reality must be structured in a certain way; and knowledge is possible, as the achievements of the sciences have shown; so reality <u>must</u> have that structure, objects <u>must</u> conform to our knowledge (in the sense that we say: 'It must have rained in the night', when we find the kitchen floor flooded in the morning).

In this way, we could really have access to 'synthetic <u>a priori</u>' knowledge - not <u>a priori</u> in the absolute sense, but as the limiting case of the relative sense referred to by Kant on page 43 of the <u>Critique of Pure Reason</u>. As knowledge, that is, of the conditions for the possibility of knowledge - conditions which are only contingently realised, but the reality of which follows necessarily from the fact that there is such a thing in science.

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Subscription: £3.00 (individual), £9 (institutional) for 3 issues postpaid. Individual copies: please add 15p each for postage, etc. Bulk orders: one-third reduction on 10 or more copies. Radical Science Journal, 9 Poland St., London W1 Some of these conditions may indeed by Kantian ones: spatio-temporal ordering, causality, countability, a principle of conservation and continuity and so on.

As Kant says of the reproducibility of representations in imagination (which is a condition of the possibility of knowledge):

'This law of reproduction presupposes that appearances are themselves actually subject to such a rule, and that in the manifold of these representations a co-existence or sequence takes place in conformity with certain rules. Otherwise our empirical imagination would never find opportunity for exercise appropriate to its powers, and so would remain concealed within the mind as a dead and to us unknown faculty. If cinnebar were sometimes red, sometimes black, sometimes light, sometimes heavy, if a man changed sometimes into this and sometimes into that animal form, if the country on the longest day were sometimes covered with fruit, sometimes with ice and snow, my empirical imagination would never find opportunity when representing red colour to bring to mind heavy cinnebar. (Critique of Pure Reason, p132)

If our faculties of knowledge depend for their possibility on the structure of the world outside them in this way, why should we not assume that the world really has that structure and hence makes them possible, rather than that they have the additional, magic ability to force the world into a knowable form which it doesn't have in itself?

Such a materialist inversion of Kant would, I suggest, be far more fruitful for epistemology than all the somersaults and other circus tricks that Hegel has been compelled to perform posthumously by his Marxist ringmasters (8).

But to return to Kant's post-Althusserian successors: we must now ask where their proposed final solution to the epistemological problem gets them. Does it rid them of the errors of rationalism? Does it enable them to think the relations between objects in a way that is neither essentialist nor mechanical? The answer to both questions, I fear, is No.

For what procedures are left to a theory in order to justify itself? Only its internal consistency, and its openness to criticism by another theory. But how do we decide between two internally consistent but conflicting theories? By their explanatory power? But what do they explain? Not 'the facts', that's for sure. A number of logically irrelevant criteria present themselves: political, aesthetic, humanistic. A consistent rejection of epistemology couldn't stop these being appealed to, any more than it could stop complete arbitrariness. The motto would be Feyerabend's: anything goes! Our present authors want to let the sheep out of the fold and Feyerabend wants to let the wolves in, but the effect is the same.

No doubt these authors would differ from Feyerabend in demanding at least high intellectual standards, logical rigour etc. This brings them closer to traditional rationalism, but they are certainly at no advantage with respect to it. Everything happens in thought; theory is not only

⁸ To avoid a possible misinterpretation: I have no sympathy for historicist readings of Kant, which have found some favour among Marxists (e.g. Lucien Goldman). According to such views, we do indeed shape reality in the process of knowing it, but in socially determined and historically relative ways. The 'inversion' which I favour is the opposite of this: a realist insistence on the objectivity of knowledge, a denial that reality is our product; and consequently a re-interpretation of the status of the so-called 'synthetic <u>a priori</u>', which remains as the set of the conditions of the possibility of experience (knowledge), but contingently and objectively realised conditions.

composed of concepts, it is about concepts; and if they can claim one up on rationalism for not imagining that reality itself is constructed deductively, by the same token they are in a worse case when it comes to the practical value of theory, for their theory has <u>no</u> relation with extra-theoretical reality.

Theories are useful when they tell us about the world; <u>then</u> they can help us to act on it more effectively. It is all very well to clarify the relation between the concept of the possessing class and the concept of the state apparatus, but the concept of a boss can't sack you and the concept of the police can't bust you.

They argue (pp219-20) that rationalism misled Marxists into regarding the superstructure as derivable in essence from the base, while in empiricism the relations of base and superstructure are held to lie 'beyond the range of theoretical determination'. According to their own view, all that can be said about the relation of base to superstructure is that each economic structure requires as a necessary condition of maintaining its existence, a superstructure from a definite range of possibilities. This is surely to reduce the relations of base and superstructure to logical relations of the concept of base to the concept of superstructure (if this interpretation is not right, I fail to see the connection between this conclusion and their view of epistemology). But in this case they get stuck on both horns of the dilemma: their theory deals only in concepts, so what can it do but 'derive essences'; and as for the reality to which the theory doesn't refer, how can its elements be related except accidentally? Did the struggle of the rising bourgeoisie against feudal superstructural institutions just happen to promote the development of nascent capitalism, and so further the interests of the bourgeoisie? Surely, real causal relations can be discerned here, without any recourse to essentialism.



I have been arguing that classical Marxist epistemology is not, <u>in intention</u>, rationalist; that its ontology is not, <u>in intention</u>, essentialist; and that its notion of structural determination is not, <u>in</u> <u>intention</u>, holistic or teleological.

Anti-Marxists who level these charges at Marx generally treat it as axiomatic that Marxism is at least essentialist and holist. They direct their energies to showing these positions to be incorrect. Popper's anti-Marxist writing is like the Maginot Line: a magnificent defence against Marxist theory, constructed along a frontier across which it was never the intention of Marxists to attack.

The authors under consideration however are in a different case. They know that the structures of which Marx and Althusser speak are not supposed to be essentialist 'expressive totalities', but they think that in fact they can't be anything else.

So we must ask ourselves: how is non-essentialist structural determination possible? And, before that: what are the distinguishing features of a Marxian (materialist) structure, as against a Hegelian totality or a Humean bundle? It is 'classical Marxism' that I am concerned to defend here, for although the <u>terms</u> 'structural causality', 'de-centred structure in dominance', etc entered Marxist parlance with Althusser's work, the <u>concepts</u> were already present; and Althusserians have sometimes got into real problems in applying these concepts to transitional periods.

In the first place, the structure has the property of maintaining itself in being while its elements change: hence it is not reducible to the sum of its elements; and at the same time, its self-reproduction is non-teleological - it doesn't depend on there anywhere existing a <u>purpose</u> of perpetuating the structure: hence it is unlike the holistic 'society as subject' which 'creates itself', which Marx and Engels ridiculed in <u>The German Ideology</u>.

Secondly, the structure assigns definite powers and limitations to its elements, which therefore can't be understood atomistically; yet it doesn't <u>constitute</u> those elements, which also obey laws other than those of determination by the structure.

Thirdly, a structure of this sort depends for its self-perpetuation on nature external to it. Thus, a society must find its raw material for production in its environment, and must satisfy the biological needs of its population, sufficiently to secure the physical survival and reproduction of its 'supports'. Every society exists under the constraint of geological and biological laws which it didn't constitute.

Fourthly, the structure may have irremediably imperfect mechanisms for securing its own reproduction; these mechanisms are not for the most part systematically or 'deliberately' produced; and they are not only accidentally imperfect, i.e. they can't in all cases be perfected within the structure, so that that structure could achieve 'immortality'.

In particular, class societies produce class antagonisms irreconcilable within these societies, which can (and to some extent always do) disrupt the society in question, and which may lead to its overthrow and supersession.

Social structures have no 'soul', no single principle or directing agency; but neither are they reducible to the interplay of many 'souls', the ideas and purposes of many individuals. 'Holism' and 'atomism' share the assumption that social explanation must be in terms of will or wills, conscious agency and purposes. In rejecting teleology, and every idealist or voluntarist form of explanation, a materialist theory of society, so far from falling midway between holism and atomism, clears itself of both at one stroke, and founds a theory of structural determination.

Marx demonstrates at length in <u>Capital</u> how capitalist firms, whose 'purpose' is to produce surplus-value (and this 'purpose' is itself determined by the structure), not only produce surplusvalue but in doing so reproduce the material and structural conditions of existence of capitalism new means of production, new workers, the same relation of separation between them.

The question how political and ideological formations are produced is more complex, but the solution is no more 'teleological'. The state and ideology are not for the most part <u>purpose-built</u> to secure the reproduction of capitalist relations. The policeman defends 'law and order' and in doing so defends the privileges of the bourgeoisie. The parson preaches spiritual values and in doing so offers sufferers an alternative solution to the relief of their suffering; he is not a conscious opium-pusher.

In order to achieve a materialist analysis of the superstructure, it is necessary to separate the



question of the production of ideological and political institutions, from the question of the <u>role</u> of such institutions in the reproduction of class relations. It is their failure to separate these questions, rather than any rationalist epistemology, which forces many Marxists into teleological explanations (e.g. the 'functionalism' of Althusser's essay on ideology and the state).

But if these questions are separate, how does it come about that the superstructure does in fact promote the reproduction of economic class relations? Once again, the answer is not to be found in consciousness, teleology, providence, or Joe Reality; it is simply that if a hypothetical mode of production had no mechanism that secured this effect, that mode of production could not be instantiated. So that it is no accident that the only modes of production that exist are ones with mechanisms which do in fact do the job of creating the political and ideological conditions for their reproduction.

While we are on the subject of teleology, it is perhaps worth pointing out that biological organisms - so beloved of holistic/teleological theorists as analogies ('society as an organism') - in fact are themselves materialist structures, governed not by a single constitutive principle, but by the complex, structured causal interaction of their elements with each other and with the outside world..

One who denies the possibility of materialist structures invalidates not only materialist theories of society, but also materialist theories of biology. The break with atomistic behaviorism and essentialistic psychologies of consciousness achieved by psychoanalytic theory would likewise be called into question. If Spinoza and Marx are cast into the pit, it is with Darwin and Freud clutching their heels. And indeed, when Hindess criticises Popper's use of Darwinian homologies in Philosophy and Methodology in the Social Sciences, he does accuse Popper of 'teleology' in a context which implies that Darwin was also guilty. The greatest victories over teleological explanation in the history of science are thereby tarred with the brush of teleology just because the phenomena they explain look teleological superficially. In this way, these authors situate themselves in pre-Darwinian as well as pre-Marxian theoretical space (9).

This has taken us away from epistemology, but on the evidence of other texts by some of these four authors, it would seem that the rejection of essentialism may have motivated the rejection of epistemology. It is necessary to show that Marx is not guilty of essentialism or teleology in order to plead guilty to epistemology with a good conscience.

3) Requirements of an Epistemology for the Human Sciences

Doubtless it will be asked: Doesn't an epistemology which stresses the role of 'questions put to nature' (i.e. procedures so set up that the result depends on the structure of external reality) constitute just one more form of dogmatism? For if it is a definite enough criterion to exclude certain theoretical practices, must it not be claiming privileged access to reality for one form of enquiry?

This is easily answered. All that such an epistemology demands is that a theoretical practice <u>be</u> an enquiry into reality, i.e. aims to measure its propositions against reality. Discourses which make no effort to conform themselves to reality can hardly object if a discourse which does attempt to do so claims superiority precisely in this respect: its correspondence to the real. Needless to say, epistemology doesn't rule out discourses which make no claim to yield objective knowledge poetry, for instance. It simply insists that discourses that do make such claims try to fulfil them. Experiment is simply the attempt to make the truth of one's conclusions <u>no accident</u>.

But it will be alleged that I am not arguing from the nature of science, but from the nature of truth; and that there is pre-scientific knowledge as well as a scientific one.

Naturally, it is true that we stumble on 'facts' in our everyday non-scientific practices, and that the element of truth in our everyday conception of the world is also 'no accident' in that without some degree of knowledge, no practice would be possible. But - even without bringing in the fact that a Marxist theory of ideology shows us that the error in this conception is no accident either - the testing of these conceptions within non-scientific practice is necessarily haphazard, being as it is no more than a by-product of our pursuit of our practical needs. The whole value of science as a separate specialised activity (10) is that it lets the things (11)them-

- 10 'Specialised' in the sense that it is distinct from other activities, not necessarily in the sense of being the activity of a socially distinct body of specialists. Naturally, in a bourgeois society, the social division of labour is superimposed on the technical division, and the 'scientific community' as a rule forms part of the bourgeoisle or petty bourgeoisle. This does not of course mean that the contents of their discoveries are bourgeois, any more than one can taste the surplus value in one's beer. Having said that, though, I certainly don't imagine that communist society could do without 'experts'. The simple fact that human knowledge accumulates necessitates the permanent increase of specialisation. The anti-specialism lobby stems from a petty bourgeois conception of knowledge as the private property of individuals.
- 11 It has been suggested to me that referring to the objects of science as 'things' is revealing, indicating some 'reification' underlying my thought. The expression I use was suggested by the phrases '<u>res ipsa loquitur</u>' and 'to the things themselves' (the latter a translation of Husserl's 'Zu den Sachen').

'Zu den Sachen'). But as this is a common objection to the 'scientistic' Marxism which it is my concern to defend, it is worthy of a few comments. The O.E.D. gives as the primary sense of 'thing': 'Whatever is or may be an object of thought', and derives it from Old High German 'ding' meaning 'public assembly'. Equivalent words in other European languages also indicate a primary sense of 'object of discourse or activity' rather than 'bit of hardware', which is what people have in mind in connection with 'reflication'. In common usage, 'thing' is the most general ontological term in the English language, ranging over events ('a funny thing happened to me...'), people ('you poor old thing'), statements, actions ('what a thing to say, do'), relationships ('baby, we've got a good thing going'), intellectual problems ('The time has come, the walrus Said, to speak of many things ... why the sea is boiling hot and whether pigs have wings') - the list could be extended indefinitely.

Two 'things' (conclusions) follow from this. Firstly, the term 'reification' will be quite contentless unless we restrict its meaning to something like 'the fallacy of misplaced concreteness'. Secondly, there is likely to be a hidden motive behind the objection to 'reifying' discourse (in the wider, contentless sense). I would suggest an epistemophobla which finds it threatening to be the object of knowledge (it is noteworthy that the word 'objectifying' is used of knowledge with the same pejorative sense). I would seriously suggest that the whole anti-scientific ideology which sees objective knowledge as a threat in this way can be explained without residue in Freudian terms as an effect of a reaction-formation against scopophilla. Cf. Nietzsche: 'Science offends the modesty of all genuine women. They feel as if one were trying to look under their skin - or worse : under their clothes and finery.' (Beyond Good and Evil, p81). Needless to say, this doesn't just apply to women, let alone to 'genuine' women, whatever they might be.

⁹ The question 'How are non-teleological self-reproducing structures possible?' is best answered by referring to actual structures of this kind - to answer it in general terms is to risk falling into the sort of <u>a priori</u> dialectics which was the chief error of the older forms of dialectical materialism (from Engels to Mao). If the detailed account of the reproduction of capitalist social relations in Marx's <u>Capital</u> does not convince these authors, I can only suppose an <u>a priori</u> rejection of dialectics on their part, and recommend that they take another look at modern biology. However, there do exist some general accounts of this kind of structure, produced independently of Althusser's account. For instance in Bukherin's much maligned <u>Historical Materialism</u>; and, in exposition of Spinoza, in Hans Jonas's paper 'Spinoza and the Theory of Organism', in <u>Spinoza; a Collection of Critical Essays</u>, ed. Marjorie Grene.

selves' speak instead of interpreting them in terms of our practical needs; that it so orders our practice (experiment) that its result depends on the structure of external reality, not on us. Science thus enables us to overcome the anthropocentricity which necessarily qualifies our everyday knowledge based on practical experience. This in turn makes possible the development of radically new practices which could never have been arrived at by mere practical experience. The immense progress achieved by the human race in the last three hundred years was made possible by this mutation which allowed science to emerge and liberate itself from immediate practical concerns. Of course this mutation had something to do with the rise of the bourgeoisie, but then the bourgeoisie of that era was carrying out an unprecedented development of human liberation. Reactionaries in radical clothes who wish to renege on the scientific achievements of the bourgeoisie should be recognised as partisans of the other historical alternative, of barbarism, not socialism.

For the rest, all that needs to be said about prescientific knowledge is that it is possible because everyday practice includes something analogous to experiment, though limited by its immediate practical purpose; to use the Freudian term, it includes reality-testing. Nevertheless, pre-scientific beliefs must give way to scientific ones when they clash.

Finally we come to the question of the applicability or otherwise of the approach I have been defending to the human sciences. After all, Popper used a version of experimentalism to condemn Marxism and psychoanalysis. And with the exception of certain forms of psychological research (of rather doubtful value), experiment in the <u>laboratory</u> sense has little use in the human sciences. How does historical materialism, for instance, put its questions to nature (or to society)?

As a preliminary to answering this, it is useful to distinguish (using a passage from Husserl's Logical Investigations, vol. I, pp230-31) between abstract or theoretical sciences, which 'are nomological, insofar as their unifying principle, as well as their essential aim of research, is a law', and concrete sciences, in which 'one connects all the truths whose content relates to one and the same individual object, or to one and the same empirical genus'. Husserl goes on to say that 'the abstract or nomological sciences are the genuine, basic sciences, from whose theoretical stock the concrete sciences must derive all that theoretical element by which they are made sciences.' No doubt this group (abstract sciences) includes physics, chemistry etc. As instances of concrete sciences, Husserl cites 'geography, history [i.e. presumably, historiography - A.C.], astronomy, natural history, anatomy etc.'

Now many of the characteristics of the concrete sciences are commonly ascribed to the social or human sciences. For instance, experiment as it exists in the abstract sciences is out of place in the concrete sciences listed above. They proceed by observation, description, and explanation in terms of abstract-scientific concepts, whereas the abstract sciences proceed by abstraction, deduction and experiment. Furthermore, prediction in the concrete sciences is always probabilistic, and the falsification of predictions in them has no immediate theoretical consequences. The abstract sciences on the other hand make no predictions in the sense of forecasts, only conditional predictions. The

foundation of Popper's shadow boxing with Marxism was his belief that Marxism was a concrete science and nothing else. This belief is false, but not merely perverse; the relation between historical materialism as an abstract science and the concrete analysis of the concrete situation which Lenin called the heart of Marxism, is one which desperately needs clarifying. Embarrassment about the unclarified nature of this relation is no doubt one of the unconscious motives for the various forms of epistemological Luddism which are so prevalent on the left. For abstract sciences in general are tested independently of their use in various concrete sciences, by means of experiment. But in the case of Marxism, it is difficult to point to tests which are not in themselves applications. Where are the experiments? Here let us refer to Marx: 'In the analysis of economic forms neither microscopes nor chemical reagents are of assistance. The power of abstraction must replace both.' (Capital vol. I, p90). However, in the natural sciences too, such abstraction has to be made before experiment becomes possible. The 'experimental conditions' of the laboratory are essentially reproductions in reality of abstractions that have already taken place in thought. The essence of 'laboratory conditions' is that irrelevant variables that would affect a process under natural conditions can be artificially eliminated. Any abstract science - natural or social - must abstract from aspects of the real of which it is not at that moment treating; but only in the natural sciences is it possible to actualize this abstraction and hence measure the real forces, in terms of the concepts of the science in question. For this reason, although the human sciences formulate concepts of forces, relations etc which are in principle quantifiable (libido, the rate of exploitation and so on), they are not able to assign accurate numerical values to specific instances of these. Both historical materialism and psychoanalysis assume an ontology of quantifiable forces, without being able to quantify them (except as 'more' or 'less', 'high' or 'low', 'rising' or 'falling').

This is not just a 'difference in method' between natural and human sciences - it is not even a difference in method. It is a disadvantage under which the human sciences labour, and which prevents them from achieving the same precision as the natural sciences. The persistent disagreements within Marxist or Freudian theory are only partly explained by the proneness of these sciences to the intervention of ideology (by virtue of their social implications). Their unavoidable imprecision is also at work here. And it is no use seeking humanistic consolations for this imprecision ('people are complicated, can't be mathematically quantified, resist scientific analysis' etc etc etc). These theoretical imprecisions lead to miscalculations in the practices based on them, which can have consequences far more tragic than any physicist's or pharmacologist's mistake has yet been (Stalin, Hitler).

Nevertheless, these imprecise sciences are better than no sciences at all. If they were not, we should forget about Marxism and revert to an empiricist practice of politics, in which there is no theory but 'learning by experience' - a sort of left Oakeshottism. Some Marxists would not be averse to this option, I think. It is implicit in Mandel's statement that it is by a 'historico-genetic method that we will succeed, rather than by an abstract attempt to work out concepts that risk being challenged by the next historical experiences. It is only the balance-sheet of history and revolutionary practice that will teach us to think more correctly.' (<u>New Left Review</u> 100, p102). Concepts which don't <u>risk</u> being challenged by future historical experiences don't give us any guidance about how to prepare for those experiences, and hence are useless for practice, while leaving theory to those with hindsight. If we need theory at all, we can't wait for the owl of Minerva.

'The proof of the pudding is in the eating' - very well, but if you have reason to suspect that the pudding is poisoned, you will be well advised to subject it to scientific tests before eating it. The <u>practical</u> advantage of theoretical science over practical experience is precisely this separation it makes possible between testing a theory and applying it.

Marxist science is not accurate enough to give us a fail-safe strategy for revolution, but it has got enough content to exclude certain apparent possibilities, and so takes us further than a mere empiricist politics of wait-and-see. For example, Marxist theory (as developed by Lenin) excludes the 'possibility' of a parliamentary road to socialism (PRS). Let us make the question about the epistemological status of Marxism more concrete by looking at this example.

In the first place, we must avoid the temptation of looking for direct empirical verification of this doctrine - e.g. in Chile. Someone can always give plausible reasons for thinking that Chile was a special case. And Lenin had already long since formulated the essentials of the case against the possibility of a PRS. But on the other hand we are not dealing with something that follows in rationalistic fashion from a priori definitions. This could hardly-be so when, as is well known, Marx and Engels, in historical conditions rather different from today's, did believe a PRS to be possible in a few countries (Britain, USA, Holland - see Engels's introduction to Class Struggle in France, and Marx's speech on the Hague Congress of the first International - both postdating the Paris Commune).

The impossibility of the PRS follows from the nature of the state apparatus in advanced bourgeois societies. Not primarily the nature of parliament itself, but of army, bureaucracy, police etc. When Marx and Engels envisaged a PRS, they nevertheless recognised that all that an electoral victory for a revolutionary workers' party would do is show that class consciousness had reached the point of ripeness for worker's power - it would not in itself constitute that power. A 'pro-slavery rebellion' on the part of the bourgeoisie could be expected. By the time of the Russian revolution it was obvious to Lenin that the parliamentary democracies had developed sufficiently large, specialised, powerful and hierarchical state apparatuses to remove the struggle for power from the parliamentary site altogether (which doesn't mean that the workers' movement can't use parliament, as the bourgeoisie does, for ideological purposes). The confrontation between classes in future revolutionary situations therefore would take the form, not primarily of confrontations between parties in parliament, but between the whole hierarchy of bourgeois state and economic apparatuses on the one hand, and a network of democratic workers' institutions - workers' councils, militias etc - on the other. The essential difference between a parliament and the supreme representative assembly in a workers' state would

be, not merely the class composition or mode of election (though those are of course important), but that the workers' assembly would rest on a pyramid of democratic organs of power (economic, military and administrative), whereas the bourgeois parliament rests on a <u>hierarchic</u> apparatus. The crucial divide between Lenin and the believer in the PRS then consists in their view of the nature of the organs of state power in bourgeois democracies. Are they simply instruments which can be transferred from brougeois to proletarian hands, or are they essentially institutions of bourgeois power which must be smashed? Once the question has been put in this form (a Marxist form, determined by the higher-level - but still empirical - hypothesis that all states are forms of class power) it can be answered by investigating the daily running of bourgeois states. All sorts of empirical facts about Watergate, the refusal of army chiefs in Ulster to obey their parliamentary masters, the approval given by the organs of the British bourgeoisie (The Times, The Economist) to the Chilean atrocities, the co-operation of police chiefs with the fascists at Lewisham and Manchester, a judge giving his blessing to an advocate of genocide - these facts acquire a theoretical importance far beyond that granted them by the liberal who sees in them only 'abuses'.

The structure of the enistemology governing our revolutionary theory then is as follows: our theoretical postulates are tested, not indeed under laboratory conditions, but not merely by applying them in revolutionary practice either. They generate questions which can be asked of the various realities thrown up by history, such that the answers that history gives (12) are not just facts, but evidence for the theoretical postulates, which can then be used to guide strategy in new circumstances too. May we never have to prove the poisonous pudding of the PRS in the manner of the Chilean comrades - by eating it.

12 In case there are any readers who still imagine that Marxists personify 'history' and spell it with a capital 'H', I should point out that it is a figure of speech similar to 'experience teaches us ...' or 'time will tell'.

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4) Summary of Issues, and a note on 'de-negations' of Idealism

Perhaps it will be useful to conclude by summarising the anti-epistemological theses of Cutler et al, and the antitheses presented in this essay. (I am not a Hegelian, and don't believe in the possibility of 'synthesis'. It is a question of Either / Or.)

Thesis: that all epistemology is dogmatic in that it assumes that some particular method of enquiry has privil- eged access to the real.	Antithesis: epistemology need only demand that knowledge be produced by enquiring into the real, by 'putting questions to nature'. This requirement is not imposed by any dogma, but by the fact that science aims at truth, i.e. at 'matching' (13) the real.
Thesis: that any such correspondence assumes a pre- established harmony between discourse and reality.	Antithesis: on the contrary, the whole purpose of putting ques- tions to nature is to <u>establish</u> a harmony between discourse and reality, which can't therefore be <u>pre-established</u> .
Thesis: 'putting questions to nature' presupposes some theory-independent observation-statements against which to test theories.	Antithesis: it does not, for the 'replies' of nature are results of theory-determined procedures of enquiry, and will therefore originally be couched in terms of the theory, even if they lead to its revision or abandon- ment. But the results themselves are not deter- mined by the theory, but by the structure of reality.
Thesis: all epistemology must be rationalist or empiricist Rationalism reduces relations between objects to conceptual relations, and empiricism to con- tingent conjunctions.	Antithesis: these possibilities are not logically exhaustive, and Marx's methodological statements fall into neither category. Modern scientific epistemology has worked out an alternative to both more thoroughly - the best example being Bhaskar's <u>A Realist</u> <u>Theory of Science</u> .

Finally, it is worth looking at one or two of the passages in <u>Mode of Production and Social</u> <u>Formation</u> in which Hindess and Hirst deny that they are idealists.

'We must insist, confident that we shall be misread, that our rejection of the epistemological category of 'concrete'' is not a denial of the significance or reality of (material) objects. That denial is a position within epistemology which substitutes other (spiritual) objects as appropriate to knowledge. We do not deny the <u>existence</u> of social relations - that would render our project absurd. What we reject is the <u>category</u> of ''concrete'' as object-of-knowledge. It is the relation of ''appropriation'' or of ''correspondence'' of knowledge to its objects which we challenge. ' (pp6-7)

(a) Idealism is taken here in the sense of idealist <u>ontology</u>, where it is idealist <u>epistemology</u> which is at issue. The two are logically independent.
(b) Saying that their position is not idealist because it is not epistemology is as fatuous as A. J. Ayer's claim that he is not an atheist since on his view it makes no sense to talk of God, and therefore makes no sense to deny his existence.

(c) The non-existence of social relations would render their project no more absurd than would the non-correspondence of knowledge and its objects.

'This does not commit us to denying that tables exist so said Berkeley - A.C. or cause us intellectual discomfort when we refrain from walking out of the top windows of high buildings.' (p8)





I have lost no sleep worrying about the physical safety of Hindess and Hirst. If idealists acted on their sophisms, a Darwinian process would have considerably simplified the task of materialist philosophers. Unfortunately the dislocation between theory and reality which idealism excuses does have practical effects at more complex levels. The elimination of the bigger part of Marxist theory in <u>Marx's 'Capital' and Capitalism Today</u> could have very serious political effects if it convinced the left.

'This is not to deny ''reality'' exists, is ordered, or to assert that it is infinite and unknowable all of these are sceptical or critical positions within epistemological discourse. '(p8) 'All epistemologies share the conception of an independently existing realm of objects that may none the less be correlated with their representations of appropriations in determinate forms of discourse. To deny epistemology is to deny that correlation. It is not to deny forms of existence outside of discourse but it is to deny that existence takes the form of objects representable in discourse. '(p21)

If it is denied that reality is representable in discourse, it is asserted that reality is unknowable, despite protestations to the contrary.

The gentlemen must make up their minds. If they think that knowledge has some relation to reality, they must tell us what it is. If not, they must say what the point of knowledge is. If they can't, they should shut up.

13 I owe this expression to Rip Bulkeley.