

THE VALUE THEORY OF LABOUR

Diane Elson

WHAT IS MARX'S THEORY OF VALUE A THEORY OF?

1. The theory of value: a proof of exploitation?

Let us first consider the interpretation which is very widespread on the left, particularly among activists, that Marx's theory of value constitutes a proof of exploitation. A good example of this position in CSE debates is that put forward by Armstrong, Glyn and Harrison. Their dogged defence of value rests on the belief that only by employing the category of value can the existence of capitalist exploitation be demonstrated and that to demonstrate this is the point of Marx's value theory:

Any concept of surplus labour which is not derived from the position that labour is the source of *all* value is utterly trivial. (Armstrong, Glyn and Harrison, 1978, p. 21.)

Marx does not, however, seem to have shared this view:

Since the exchange-value of commodities is indeed nothing but a mutual relation between various kinds of labour of individuals regarded as equal and universal labour, i.e. nothing but a material expression of a specific social form of labour, it is a tautology to say that labour is the *only* source of exchange-value, and accordingly of wealth in so far as this consists of exchange-value ... It would be wrong to say that labour which produces use-values is the *only* source of the wealth produced by it, that is of material wealth. (*A Contribution to the Critique of Political Economy*¹, p. 35-36.)

Capital did not invent surplus labour. Wherever a part of society possess the monopoly of the means of production, the worker, free or unfree, must add to the labour-time necessary for his own maintenance an extra quantity of labour-time in order to produce the means of subsistence for the owner of the means of production. (*Capital*, I, p. 344.)

Moreover to regard Marx's theory of value as a proof of exploitation tends to dehistoricise value, to make value synonymous with labour-time, and to make redundant Marx's distinction between surplus labour and surplus value. To know whether or not there is exploitation, we must examine the ownership and control of

the means of production, and the process whereby the length of the working day is fixed. (See Rowthorn, 1974.) Marx's concern was with the particular *form* that exploitation took in capitalism (see *Capital*, I, p. 325), for in capitalism surplus labour could not be appropriated simply in the form of the immediate product of labour. It was necessary for that product to be sold and translated into *money*. As Dobb comments:

The problem for Marx was not to prove the existence of surplus value and exploitation by means of a theory of value; it was, indeed to *reconcile* the existence of surplus value with the reign of market competition and of exchange of value equivalents. (Dobb, 1971. p. 12.)

The view that Marx's theory of value is intended as a proof of exploitation does, however, have the merit of seeing that theory as a *political* intervention. The problem is that it poses that politics in a way that is closer to the 'natural right' politics of 'Ricardian socialism' or German Social Democracy, than to the politics of Marx. (See for instance Marx's 'Critique of the Gotha programme', Marx-Engels, *Selected Works*, Vol.3; also, Dobb, 1973, p. 137-141.) Because of this it has no satisfactory answer to the claim that exploitation in capitalism can perfectly well be understood in terms of the appropriation of *surplus product*, with no need to bring in value at all. (See for instance Hodgson, 1976; Steedman, 1977.) But in rejecting this interpretation of Marx's value theory we must be careful not to de-politicise that theory. The politics of the theory is a question we shall return to at the end of this paper.

2. The theory of value: an explanation of prices?

This approach may be found separately or combined with the one we have just considered. It is the interpretation offered by most Marxist economists in the Anglo-Saxon world, that Marx's theory of value is an explanation of equilibrium or 'natural' prices in a capitalist economy.. As such it is one of a number of theories of equilibrium price, so that, for instance, in Dobb's *Theories of Value and Distribution*, Marx's theory of value can be examined alongside the theories of Smith, Ricardo, Mill, Jevons, Walras and Marshall, as if it were a theory with the same kind of object. Indeed the main distinction made by Dobb is

'between theories that approach the determination of prices, or the relations of exchange, through and by means of conditions of production (costs, input-coefficients and the like) and those that approach it primarily from the side of demand.' (Dobb, 1973, p. 31.)

For Dobb the great divide is between Smith, Ricardo and Marx who are in the first category, and the others, who are in the second. A similar interpretation is offered by Meek:

'there is surely little doubt that he (Marx) wanted his theory of value ... to do another and more familiar job as well — the same job which theories of value had always been employed to do in economics, that is, to determine prices.' (Meek, 1977, p. 124.)

Of course, it is recognised, within this interpretation, that there are differences between Marx and other economists, even between Marx and Ricardo.

‘Marx’s theory of value was something *more* than a theory of value as generally conceived: it had the function not only of explaining exchange-value or prices in a quantitative sense, but of exhibiting the historico-social basis in the labour process of an exchange — or commodity — society with labour power itself become a commodity.’ (Dobb, 1971, p. 11.)

The way of noting these differences that has become most popular is the distinction between the quantitative-value problem and the qualitative-value problem, introduced by Sweezy. The former is the problem of explaining the quantitative exchange-relation between commodities; the latter is the problem of explaining the social relations which underlie the commodity form. For Sweezy,

‘The great originality of Marx’s value theory lies in its recognition of these two elements of the problem and in its attempt to deal with them simultaneously within a single conceptual framework.’ (Sweezy, 1962, p. 25.)

Or as Meek put it,

‘The qualitative aspect of the solution was directed to the question: why do commodities possess price at all? The quantitative aspect was directed to the question: why do commodities possess the particular prices which they do?’ (Meek, 1967, p. 10.)

It is clear that the object of Marx’s theory of value is taken, in this tradition, to be the process of exchange or circulation.

‘... the study of commodities is therefore the study of the economic relations of exchange.’ (Sweezy, 1962, p. 23.)

Marx is interpreted as explaining this process in terms of a separate, more fundamental process, production. Dobb, for instance, writing an Introduction to Marx’s *A Contribution to the Critique of Political Economy*, suggests that Marx’s interest,

‘is now centred on explaining exchange in *terms of production* ... Exchange relations or market ‘appearances’ could only be understood ... if they were seen as the expression of these more fundamental relations at the basis of society.’ (Dobb, 1971, p. 9-10.)

According to Sweezy,

‘Commodities exchange against each other on the market in certain definite proportions; they also absorb a certain definite quantity (measured in time

units) of society's total available labour force. What is the relation between these two facts? As a first approximation Marx assumes that there is an exact correspondence between exchange ratios and labour-time ratios, or, in other words, that commodities which require an equal time to produce will exchange on a one-to-one basis. This is the simplest formula and hence a good starting point. Deviations which occur in practice can be dealt with in subsequent approximations to reality.' (Sweezy, 1962, p. 42.)

It has generally been suggested that this 'first approximation' is maintained throughout the first two volumes of *Capital*, and relinquished in Volume III, where the category of prices of production is introduced and 'values are transformed into prices.' The adequacy of Marx's 'solution' to the 'transformation problem', and the merits of various alternative solutions have until recently been the chief point of debate in this tradition of interpretation. (No attempt will be made here to review the lengthy literature. For references, see Fine and Harris, 1976.)

In what sense is it held that the labour-time required to produce commodities 'explains' or 'determines' their prices (either as a 'first approximation' or through some 'transformation')? I think two related arguments are deployed in the writings in this tradition. The 'first approximation' of prices to the labour-time required for production is supported by an argument that derives from Adam Smith's example of the principle of equalisation of advantage in a 'deer and beaver' economy. (See, for instance, Sweezy, 1962, p. 45-46.) Suppose we consider two commodities ('deer' and 'beaver'), one of which ('deer') takes one hour to produce, the other of which ('beaver') takes two hours; and suppose that on the market one deer exchanges for one beaver. The argument is that each producer will compare the time it takes him to produce the commodity (in this case by hunting) with its market price, expressed in terms of the other commodity. It is clear that you can get more beavers by producing deer and exchanging than for beaver, than by directly producing beaver. Therefore producers will tend to allocate their time to producing deer rather than beaver. This will increase the supply of deer, reduce the supply of beaver. Other things being equal, this will reduce the market price of deer and increase the market price of beaver. The movement of labour-time from beaver to deer will continue until the market price of deer in terms of beaver is equal to the relative amounts of labour required to produce the two commodities, i.e. until two deer exchange for one beaver. At this point the transfer of labour-time will stop, and the system will be in equilibrium, with prices equal to labour-time ratios.

A more complex argument is deployed to indicate how labour-time determines prices through a 'transformation.' Here labour-time and price of production are related through an equilibrium 'model' of dependent and independent variables. As Meek put it:

'In their basic models, all three economists (i.e. Ricardo, Marx and Sraffa) in effect envisage a set of technological and sociological conditions in which a net product or surplus is produced (over and above the subsistence of the worker, which is usually conceived to be determined by physiological and social conditions.) The magnitude of this net product or surplus is assumed

to be given independently of prices, and to limit and determine the aggregate level of the profits (and other non-wage incomes) which are paid out of it. The main thing which the models are designed to show is that under the postulated conditions of production the process of distribution of the surplus will result in the simultaneous formation of a determinate average rate of profit and a determinate set of prices for all commodities.’ (Meek, 1977, p. 160.)

The magnitude of the net product is measured in terms of the labour time socially required for its production.

The feature of both arguments which it is important to note is that they pose the socially-necessary labour-time embodied in commodities as something quite separate, discretely distinct from, and independent of, price. It is given solely in the process of production, whereas price is given solely in the process of circulation. The two processes are themselves discretely distinct, although they are of course linked. And it is in production that ‘the key causal factor’, ‘the relatively independent ‘determining constant’ is to be found. (See Meek, 1967, p. 95; Meek, 1977, p. 151.) It follows that we can, in principle, calculate values (i.e. socially-necessary labour-time embodied in commodities) quite independently of prices, and deduce equilibrium prices from those values. The last possibility is often regarded as the indispensable guarantee of the scientific status of Marx’s value theory, of its distance from a metaphysical juggling of concepts. (Although, as writers in this tradition generally admit, in practice such a calculation would be impossible to make.)

The reading of Marx as a builder of economic models has been carried to its logical extreme in the recent work of some professional economists, perhaps most notably in the work of Morishima, in which,

‘the classical labour theory of value is rigorously mathematised in a familiar form parallel to Leontief’s inter-sectoral price-cost equations. The hidden assumptions are all revealed and, by the use of the mathematics of the input-output analysis, the comparative statical laws concerning the behaviour of the relative values of commodities (in terms of a standard commodity arbitrarily chosen) are proved. There is a duality between physical outputs and values of commodities, which is similar to the duality between physical outputs and competitive prices. It is seen that the labour theory of value may be compatible with the utility theory of consumers demand or any of its improved variations.’ (Morishima, 1973, p. 5.)

All politics is ruthlessly excised in the interests of making Marx a respectable proto-mathematical economist.²

‘(values) are determined only by technological coefficients ... they are independent of the market, the class-structure of society, taxes and so on.’ (Morishima, 1973, p. 15.)

More important in CSE debates has been the development within this general line of interpretation of an approach which excises not politics as such, but value. Arguing from the same premises as the Sweezy-Meek-Dobb tradition, it has come to the conclusion that,

‘the project of providing a materialist account of capitalist societies is dependent on Marx’s value magnitude analysis *only* in the negative sense that continued adherence to the latter is a major fetter on the development of the former.’ (Steedman, 1977, p. 207; See also Hodgson and Steedman, 1975; Hodgson, 1976; Steedman, 1975a, 1975b.)

The quantity of socially-necessary labour-time embodied in a commodity has been found to be at best redundant to, at most incapable of, the determination of its equilibrium price. The so-called ‘Neo-Ricardians’ pose instead, as independent variables, the socially-necessary conditions of production and the real wage paid to workers, specified in terms of physical quantities of particular commodities. Unlike Morishima, Steedman does not take such quantities as purely technological: they are assumed to be determined socially and historically and reflect the ‘balance of forces’ between workers and capitalists in the work place.

There is no doubt that within its own terms this critique of the theory of value, as an explanation of equilibrium prices in terms of labour quantities, is quite correct. Attempts to preserve the traditional Anglo-Saxon version of the theory of value tend to dissolve into positions even more ‘Ricardian’ than that of the ‘Neo-Ricardians’ (a point made by Himmelweit and Mohun, 1978). This paper makes no attempt to rescue this traditional ‘labour theory of value’. Instead it argues for a quite different reading of Marx’s theory of value, in relation to which it is the Sraffa-based critique which is redundant, rather than value.

In some respects even more iconoclastic than the Neo-Ricardians is the work of Cutler, Hindess, Hirst and Hussain. Prefaced by a picture of Christ cleansing the temple, they claim:

‘It is possible to argue that prices and exchange-values have no *general* functions or general determinants ... Such a change of pertinence of problems would put us not only outside of the Marxist theory of value but also conventional economic theory.’ (Cutler et al., 1977, p. 14.)

and declare:

‘In this book we will challenge the notion that ‘value’ is such a general determinant’ (op. cit., p. 19.)

I too will challenge the notion that value is such a general determinant, in the sense that Cutler et al. understand this, i.e. as a single ‘origin’ or ‘cause’ of prices and profits. But my challenge will be directed to the very notion that Marx’s theory of value poses value as the origin or cause of anything. Among other things, I shall argue that Marx’s concept of a determinant is quite different from those of authors considered in this section.

3. An abstract labour theory of value?

It is, of course, by no means original to question whether the 'labour theory of value' discussed in the last section is to be found in the works of Marx, (see for instance Piling, 1972; Banaji, 1976). In recent CSE debates much stress has been placed on abstract labour as a means of differentiating Marx's theory of value from the interpretations so far discussed which are held to apply to Ricardo rather than to Marx. Marx certainly claims that his theory of value differs from that of Ricardo in the attention he pays to the form of labour, and the distinction he introduces between abstract labour and concrete labour. (See for instance, *Theories of Surplus Value*, Part 2, p. 164, 172.) In *Capital* we are told that the author,

'was the first to point out and examine critically this two-fold nature of labour contained in commodities ... this point is crucial to an understanding of political economy.' (*Capital*, I, p. 132.)

This point is taken up by Himmelweit and Mohun, 1978, who base their reply to Steedman, 1977, on

'a distinction between Ricardian embodied-labour theory of value and a Marxian theory of value based on the category of abstract labour. While the former is intended immediately to be a theory of price, the latter is only so after several mediations.' (op. cit., p. 94.)

They suggest that if we bear this distinction in mind, we shall find that the allegations of redundancy and incoherence, while they apply to Ricardo's theory of value, cannot be sustained for that of Marx.

Their argument is not altogether convincing for two reasons. The first is that Steedman claims to have treated labour as abstract labour and to direct his critique precisely at an abstract labour theory of value (see Steedman, 1977, p. 19), and Himmelweit and Mohun nowhere explicitly confront this claim. Clearly much depends on how the concept of abstract labour is understood. Sweezy, for instance, sees in the concept of abstract labour not an alternative to the concepts of Ricardo and Smith, but a further development and clarification of their work. (Sweezy, 1962, p. 31.) Marx himself did not tend to use 'embodied labour' and 'abstract labour' as if they were opposites, stating for instance that,

'The body of the commodity, which serves as the equivalent, always figures as the embodiment of abstract human labour.' (*Capital*, I, p. 150.)

The second reason is that their argument becomes circular: they derive the concept of abstract labour from the commodity form, and then wish to use the concept of abstract labour to explain the commodity form (op. cit., p. 73).

In my view the distinction between abstract and concrete labour *is* an important differentiation between Marx's and Ricardo's theories, but it is not the only differentiation. More fundamental are differences in the object of the theory and the method of analysis. The clarification of these is required before the meaning and significance of the concept of abstract labour becomes apparent.

4. Labour as the object of Marx's theory of value

My argument will be, not that Marx's value theory of price is more complex than Ricardo's, but that the object of Marx's theory of value is not price at all. This does not mean that Marx was not concerned with price, nor its relation to the magnitude of value, but that the phenomena of exchange are not the object of the theory. (Again this is not a completely new thought, see Hussain, this volume, p. 84.) My argument is that the *object* of Marx's theory of value was labour. It is not a matter of seeking an explanation of why prices are what they are and finding it in labour. But rather of seeking an understanding of why labour takes the forms it does, and what the political consequences are.

We can see Marx focusing on this question in his first intensive study of Adam Smith ('Economic and Philosophical Manuscripts' in *Early Writings*, esp. p. 287-9). *The German Ideology* is a sustained argument for the centrality of this question:

'As individuals express their life, so they are. What they are, therefore, coincides with their production, both with *what* they produce and with *how* they produce.' (Op. cit., p. 42.)

And in *Capital*, Marx notes the critical question that separates the direction of his analysis from that of political economy as:

'why this content has assumed that particular form, that is to say why labour is expressed in value, and why the measurement of labour by its duration is expressed in the magnitude of the value of the product. These formulas, which bear the unmistakable stamp of belonging to a social formation in which the process of production has mastery over man, instead of the opposite, appear to the political economists' bourgeois consciousness to be as much a self evident and nature-imposed necessity as productive labour itself.' (*Capital*, I, p. 174-5.)

Here Marx is signalling, not an 'addition of historical perspective' to political economy, but a difference in the object of the theory, (see also Hussain, this volume, p. 86). It is because labour is the object of the theory that Marx begins his analysis with produced commodities, as being 'the simplest social form in which the labour product is represented in contemporary society.' (*Marginal Notes on Wagner*, p. 50); and not, as Bohm-Bawerk claimed, to rig the terms of the explanation of prices (see also Kay, this volume, p. 48-50).

5. A possible misconception: the social distribution of labour

The question of why labour takes the forms it does is not simply a *distributional* question. Here the famous letter to Kugelman in July 1868 can be very misleading, for Marx writes:

'the mass of products corresponding to the different needs require different and quantitatively determined masses of the total labour of society. That this necessity of distributing social labour in definite proportions cannot be done

away with by the *particular form* of social production, but can only change the *form it assumes*, is self evident. No natural laws can be done away with. What can change in changing historical circumstances, is the *form* in which these laws operate.' (*Selected Correspondence*, p. 251.)

Taken by itself, this letter can lend support to the view that the object of the theory is simply the way in which individuals are distributed and linked together in a pre-given structure of tasks. This view is held by a wide spectrum of writers from the 'Hegelian' I. I. Rubin to the 'anti-Hegelian' Althusser.

For Rubin the theory of value is about the regulation of production in a commodity economy, where 'no one consciously supports or regulates the distribution of social labour among the various industrial branches to correspond with the given state of productive forces.' (Rubin, 1973, p. 77.) From the beginning of his book, Rubin makes it quite clear that the productive forces which constitute the various industrial branches are autonomous products of a material-technical process (Rubin, 1973, p. 1-3). What for him is social is merely the network of links between people in this pre-given structure:

'It is also incorrect to view Marx's theory as an analysis of *relations between labour and things*, things which are the products of labour. The relation of labour to things refers to a given concrete form of labour and a given concrete thing. This is a technical relation which is not, in itself, the subject of the theory of value. The subject matter of the theory of value is the *interrelations of various forms of labour* in the process of their distribution, which is established through the relation of exchange among things, i.e. products of labour.' (Rubin, 1973, p. 67).

But it is the pre-given structure which has ultimate causal significance:

'We can observe that social production relations among people are causally dependent on the material conditions of production and on the distribution of the technical means of production among the different social groups ... From the point of view of the theory of historical materialism, this is a general sociological law which holds for all social formations.' (Rubin, 1973, p. 29.)

Clearly there are many differences between Rubin's reading of Marx and that of Althusser, but the latter also invokes the letter to Kugelmann, and writes:

'Marx's labour theory of value ... is intelligible, but only as a special case of a theory which Marx and Engels called the 'law of value' or the law of the distribution of the available labour power between the various branches of production ...' (Althusser, 1977, p. 87.)

or,

'the distribution of men into social classes exercising functions in the production process'. (Althusser, 1975, p. 167.)

These 'functions in the production process' are determined by the material and technical conditions of production.

'The labour process therefore implies an expenditure of the labour-power of men who, using defined instruments of labour according to adequate (technical) rules, transform the *object* of labour (either a natural material or an already worked material or raw material) into a useful product ... the labour process as a material mechanism is dominated by the physical laws of nature and technology.' (Althusser, 1975, p. 170-1.)

While it is true that such a thesis is 'a denial of every 'humanist' conception of human labour as pure creativity', it is not a denial of, (indeed it positively encourages) a *technicist* reading of Marx, with potentially disastrous political implications.

What is more immediately important for our consideration of Marx's theory of value is that the technicist reading of the theory, as having as its object the process of distribution of individuals to pre-given places or functions in the production process, tends to lead to a re-introduction of the labour theory of value, albeit in more complex form with reciprocal causality. Not only is labour-time seen as the determinant of exchange-value; exchange-value is also seen as the determinant of labour-time. That is, exchange-values are in equilibrium equal to socially necessary labour-time embodied in commodities; and the distribution of total labour-time between different commodities is regulated by the difference between market price and relative labour-time requirements of different commodities. Rubin in fact presents an exposition of the way in which this works which is practically the same as that of Sweezy. (See Rubin, 1973, chapters 8, 9 and 10; Sweezy, 1962, chapters II and III.)

'In a simple commodity economy, the exchange of 10 hours of labour in one branch of production, for example shoe-making, for the product of 8 hours labour in another branch, for example clothing production, necessarily leads (if the shoe-maker and clothes-maker are equally qualified) to different advantages of production in the two branches, and to the transfer of labour from shoe-making to clothing production.' (Rubin, 1973, p. 103.)

The difference is that while Sweezy explicitly acknowledges the provenance of this type of argument in *The Wealth of Nations*, Rubin claims that he has not repeated 'the mistakes of Adam Smith'. (Rubin, 1973, p. 167.) He claims to differ from Smith in showing that the 'equalisation of advantage' is enforced by an objective social process which compels individuals to behave in this way. But this argument is invalid. There is no social pressure on a simple commodity producer who uses his own or his family's labour (but not hired labour) to compare the different rewards of an hour of labour in different branches of production. (See Banaji, 1977, p. 32 for discussion in the case of peasant agriculture.) It is only capitalists who are *forced* to account for all labour-time spent in production because they are in competition with other capitalists in the labour market (and all other markets). But capitalists make their calculations in *money* terms, not by a direct comparison of

labour-time with market price, because it is not their own labour-time that they are accounting for.

There is some difference between Rubin's position and Sweezy's position, insofar as the former does not pose value as a category of the production process, whereas the latter does. But this simply means that in Rubin it is the relation between value and exchange-value which is obscured, while in Sweezy (and Meek, Dobb etc.) it is the relation between value and labour-time. What all four authors have in common is a tendency to reduce the categories of the analysis from the three found in Marx's writings (labour-time, value and exchange-value) to two. Rubin identifies value with

'that average level around which market prices fluctuate and with which prices would coincide if *social labour* were proportionately distributed among the various branches of production'. (Rubin, 1973, p. 64);

and thus poses it simply as a category of circulation, and has no systematic distinction between exchange value and value.

Sweezy, Dobb, Meek (and the tradition they represent) identify value with labour-time; for example,

'Marx began by defining the 'value' of a commodity as the total quantity of labour which was normally required from first to last to produce it.' (Meek, 1977, p. 95);

and thus pose it simply as a category of production.

Rubin also shares the view that production is a discretely distinct process in which are to be found the 'independent variables' which are of ultimate causal significance.

'... the moving force which transforms the entire system of value originates in the material-technical process of production. The increase of productivity of labour is expressed in a decrease in the quantity of concrete labour which is factually used up in production, on the average. As a result of this (because of the dual character of labour as concrete and abstract), the quantity of this labour, which is considered 'social' or 'abstract', i.e. as a share of the total, homogeneous labour of the society, decreases. The increase of productivity of labour changes the quantity of abstract labour necessary for production. It causes a change in the value of the products of labour. A change in the value of products in turn affects the distribution of social labour among the various branches of production. *Productivity of labour-abstract labour-value — distribution of social labour*: this is the scheme of a commodity economy.' (Rubin, 1973, p. 66.)

Thus Rubin is still on the terrain of the labour theory of value. The object of the theory is still located in the process of circulation — it has simply been widened to include the circulation of labour time as well as of the products of labour.

6. The indeterminateness of human labour

But if Marx's theory of value does not have as its object the circulation (or distribution) of labour so as to fill the slots in a pre-given structure of production, what is its object? One way of trying to explain would be to say that it is about the determination of the structure of production *as well as* the distribution of labour in that structure. But that is still far too mechanical, too structural a metaphor. In a vivid passage in the *Grundrisse*, Marx describes labour thus:

'Labour is the living, form-giving fire; it is the transitoriness of things, their temporality, as their formation by living time.' (Op. cit., p. 361.)

It is a fluidity, a potential, which in any society has to be socially 'fixed' or objectified in the production of particular goods, by particular people in particular ways. Human beings are not preprogrammed biologically to perform particular tasks. Unlike ants or bees, there is a potentially vast range in the tasks that any human being can undertake. As Braverman puts it,

'Freed from the rigid paths dictated in animals by instinct, human labour becomes indeterminate.' (Braverman, 1974, p. 51).

This fluidity of labour is not simply an attribute of growing industrial economies: human labour is fluid, requiring determination, in all states of society. But it is true that only with industrialisation does the fluidity of labour become immediately *apparent*, because the jobs that individuals do are obviously *not* completely determined by 'tradition', religion, family ties etc.,³ and individuals do quite frequently change the job they do. As Marx put it:

'... We can see at a glance that in our capitalist society a given portion of labour is supplied alternatively in the form of tailoring and in the form of weaving, in accordance with changes in the direction of the demand for labour. This change in the form of labour may well not take place without friction, but it must take place.' (*Capital*, I, p. 134.)

Arthur, 1978, recognises that 'in a developed industrial economy social labour, as a productive force, has a fluidity in its forms of appearance' (op. cit. p. 89); but because he fails to distinguish between essence and forms of appearance, he limits this fluidity, this requirement for determination, to capitalist economies. The fact that the essential indeterminateness of human labour is not immediately *apparent* in pre-capitalist societies does not mean that it does not exist.

So the fundamental question about human labour in all societies is, how is it determined? To speak of 'determination' here does not, of course, mean the denial of *any* choice on the part of individuals about their work. Rather it is to point to the fact that individuals can't just choose *anything*, are unable to re-invent the world from scratch, but must choose from among alternatives presented to them.⁴ As several authors pointed out, Marx's concept of determination is not 'deterministic'. (See for instance, Ollman, 1976, p. 17; Thompson 1978, p. 241-242.) Although

Marx stresses that determination can never be simply an exercise of individual wills, he also stresses that it is not independent of and completely exterior to the actions of individuals:

‘The social structure and the state are continually evolving out of the life process of definite individuals.’ (*German Ideology*, p. 46.)

But

‘of individuals, not as they may appear in their own or other people’s imagination, but as they *really* are; i.e. as they operate, produce materially, and hence as they work under definite material limits, pre-suppositions and conditions independent of their will’. (*German Ideology*, p. 47.)

Distribution of social labour is not an adequate metaphor for this process of determination, because such distribution always begins from some pre-given, fixed, determinate structure, which is placed outside the process of social determination. What is required is a conceptualisation of a process of social determination that proceeds from the indeterminate to the determinate; from the potential to the actual; from the formless to the formed. *Capital* is an attempt to provide just that. It uses a method of investigation which is peculiarly Marx’s own, a method which he claimed had not previously been applied to economic subjects (Preface to French Edition, *Capital*, I, p. 104), and which has not been much applied since. I think that it is in large part the difficulties of understanding this method which have led to mis-readings of Marx’s theory of value. The next section considers this method in some detail, and contrasts it with the method of ‘the labour theory of value’ as traditionally understood.

Capital is, of course, the culmination of work on the social determination of labour that began many years before, and went through various phases. I shall not be discussing the formation of the theory of value presented in *Capital*. I merely note that many of Marx’s earlier texts are extremely ambiguous, probably because in investigating the social form that labour takes, Marx *began* from the problematic of political economy. Part of his transformation of this problematic was carried out by reading into the texts of political economy concerns which were those of Marx, rather than of Ricardo, Smith etc., in particular the concern to locate the substance of value. (See Aumeeruddy and Tortajada, this volume, p. 11-12.) In some texts we may find elements of both a ‘labour theory of value’ and a ‘value theory of labour’. There are symptoms of this even in *Critique of Political Economy*, published in 1859, eight years before the first volume of *Capital*. In this text there is no clear distinction between value and exchange-value, between the inner relation and its form of appearance, a distinction which plays an important role in the argument of *Capital*, and which one can see being developed in the commentaries of *Theories of Surplus Value*, particularly in the critique of Bailey in Part 3. Accordingly, this paper will focus on the theory of value as it appears in *Capital*, supplementing this where necessary with clarifications deriving from *Theories of Surplus Value*; and, in a few cases relating to money, from *Critique of Political Economy*.

MISPLACED CONCRETENESS AND MARX'S METHOD OF ABSTRACTION

1. Rationalist Concepts of Determination

All of the readings of Marx's value theory so far discussed have in common a misplaced concreteness, in that they understand that theory as a relation between certain already determined, 'given', independent variables located in the process of production, and certain to-be-determined, dependent variables located in the process of circulation. I think this is because it does not occur to the authors we have been considering that there is any other way of understanding the relation of determination. When questions about determination are raised it is usually only to discuss the choice of independent and dependent variables, or whether there *are* any *general* determinants. (See for instance Meek, 1977, p. 151-2; Steedman, 1977, p. 25; Cutler, et al. 1977, p. 19). It is simply taken for granted that any theory requires separable determining factors, discretely distinct from what they are supposed to determine. (See Georgescu-Roegen, 1966, p. 42; Oilman, 1976, discusses this in relation to interpretations of Marx's concept of mode of production, p. 5-11.) Althusser's 'structural causality' does not break with that view; it merely puts the independent variables one stage back, behind the 'structure'. Economic phenomena are

'determined by a (regional) structure of the mode of production, itself determined by the (global) structure of the mode of production.' (Althusser, 1975, p. 185),

but the mode of production itself is constructed of a combination of 'determinate pre-existing elements' which are 'labour power, direct labourers, masters who are not direct labourers, object of production, instruments of production, etc.' (Althusser, 1975, p. 176.)

The abandonment of Althusser's concepts by Cutler et al. does not break with that view either. They dissolve Althusser's self-reproducing 'structures', but only to go back to the 'determinate pre-existing elements' that lie behind them, the 'conditions of existence'. (See for instance Cutler et al., 1977, p. 218-219). Their main distinction is simply to be more agnostic than most other writers in this framework in their choice of independent variables. (See Ohlin Wright, 1979, for a useful classification of different approaches to the 'labour theory of value' in terms of their choice and grouping of variables.)

This approach poses the relation of determination as an effect of some already given, discretely distinct elements or factors on some other, quite separate, element or factors, whose general form is given, but whose position within a possible range is not, using what Georgescu-Roegen calls 'arithmomorphic concepts'. Essentially a *rationalist* method, it assumes that the phenomena of the material world are like the symbols of arithmetic and formal logic, separate and self-bounded and relate to each other in the same way.⁵ This is not Marx's method: his theory of value is not constructed on rationalist lines.

2. Determination in Marx's theory of value: the relation between labour-time, value and exchange-value

Oilman has pointed out that Marx's concept of the mode of production in the *Preface to A Contribution to the Critique of Political Economy* is not one of independent variables determining dependent variables. He argues that some of the expressions used to categorise that which determines,

'appear to include in their meanings part of the reality which Marx says they 'determine'. Thus, property relations as a system of legal claims came under the heading of superstructure, but they are also a component of the relations of production which 'determine' this superstructure'. (Oilman, 1976, p. 7.)

We can see something similar in the first chapter of *Capital* I. The first reference to 'determination' is:

'It might seem that if the value of a commodity is determined by the quantity of labour expended to produce it, it would be more valuable the more unskilful and lazy the worker who produced it.' (*Capital* I, p. 129.)

Marx goes on to explain why this is not so, and concludes:

'What exclusively determines the magnitude of value of any article is therefore the amount of labour socially necessary, or the labour-time socially necessary for its production.' (*Capital* I, p. 129.)

There is a tendency to misread value as 'exchange-value' or 'price', and to mistake this for a statement of a relation between a dependent and an independent variable — a 'labour theory of value', in short. But just prior to this passage Marx has specifically distinguished value from exchange-value, and stated that for the moment it is value and not exchange-value which is under consideration. Does that mean that Marx is simply giving us a *definition* of the category value in the above quoted passages, is using 'determine' in the sense of 'logically define'? No, because value is not the *same* as a quantity of socially necessary labour-time: it is an objectification or materialisation of a certain aspect of that labour-time, its aspect of being simply an expenditure of human labour power in general, i.e. abstract labour. This is a rather peculiar kind of objectification. As Marx says

'Not an atom of matter enters into the objectivity of commodities as values; in this it is the direct opposite of the coarsely sensuous objectivity of commodities as physical objects.' (*Capital*, I, p. 138.)

Considered simply as physical objects, commodities are objectifications of concrete not abstract labour. The peculiarity of the objectification of abstract labour is in fact signalled by Marx in the reference to 'phantomlike objectivity' in this well known passage:

'Let us look at the residue of the products of labour. There is nothing left of them in each case but the same phantomlike objectivity; they are merely congealed quantities of homogeneous human labour. i.e. of human labour

power expended without regard to the form of its expenditure. All these things now tell us is that human labour, i.e. of human labour power expended without regard to the form of its expenditure. All these things now tell us is that human labour-power has been expended to produce them, human labour is accumulated in them. As crystals of this social substance, which is common to them all, they are values — commodity values.’ (*Capital*, I, p. 128).

We should note the chemical metaphors — ‘congealed’, ‘crystals’ — which occur repeatedly in Chapter 1, Vol. 1. For they indicate something of the character of Marx’s concept of determination. The quantity of socially necessary labour-time does not determine the magnitude of value in the logical or mathematical sense of an independent variable determining a dependent variable, (or in the sense of defining the meaning of the term ‘magnitude of value’), but in the sense that the quantity of a chemical substance in its fluid form determines the magnitude of its crystalline or jellied form. There is a continuity as well as a difference between what determines and what is determined.

But perhaps we have been looking in the wrong direction: what about the relation between value and exchange-value? If value is an objectification of a quantity of socially necessary abstract labour-time and exchange-value is the quantity of one commodity which is exchanged for a given quantity of another, surely these are our two separate variables, the one determining the other? Marx writes of exchange-value as ‘the necessary mode of expression, or form of appearance, of value’ (*Capital*, I, p. 128), but perhaps we could interpret that as meaning that exchange-values are discretely distinct from but *correspond* to or *approximate* to values, (as Steedman, 1977, implies in his appendix). After all, Marx writes that the measure of the magnitude of value is labour-time, whereas the magnitude of exchange-value is measured in terms of a quantity of some commodity, or most generally, in terms of money, which would seem to suggest that the two are quite independent.

However, it is extremely difficult to maintain that interpretation if we take into account the much-neglected third section of chapter 1, ‘The Value-Form or Exchange Value’. Here Marx suggests that, divorced from its expression as exchange-value, value is simply an abstraction, without practical reality. It cannot stand on its own: it is not a category designating a reality which is independent of exchange-value, but a reality which is manifested through exchange-value. (See Kay, this volume, p. 57-8, and Arthur, ditto, p. 68.)

‘If we say that, as values, commodities are simply congealed quantities of human labour, our analysis reduces them it is true, to the level of abstract value, but does not give them a form of value, distinct from their natural form.’ (*Capital*, I, p. 141.)

If a product of labour is a value this must be reflected in some attribute of the product of labour which is immediately apparent, although not immediately recognisable as a reflection of value.⁶ The simplest form of this reflection is when another commodity stands in a relation of equivalence to the first commodity, and serves as the material in which its value is expressed, as the embodiment of

abstract labour. But this is a very limited expression of value, since it only expresses the equivalence of the first commodity with one other commodity. For an adequate expression of value, the first commodity must be able to express its value in terms of a universal equivalent, a commodity directly exchangeable with all other commodities, a commodity whose use value is its interchangeability. As the process of exchange develops one commodity is set apart from the others and comes to play this role, or, as Marx puts it, 'Money necessarily crystallises out of the process of exchange.' (*Capital*, I, p. 181.)

Marx thus locates the 'form of value' in the price of a commodity. For Marx, the price of a commodity is not the result of some process quite independent of (discretely distinct from) the formation of its value (the objectification in it of abstract labour). Rather,

'the money-form is merely the reflection thrown upon a single commodity by the relations between all other commodities'. (*Capital*, I, p. 184.)

This does not mean that money must always be commodity money (i.e. gold); nor that because price is a value-form, price and value are identical.

Marx explicitly recognised that 'money can, in certain functions, be replaced by mere symbols of itself.' (*Capital*, I, p. 185), and points out that,

'In its form of existence as coin, gold becomes completely divorced from the substance of its value. Relatively valueless objects, therefore, such as paper notes, can serve as coins in place of gold. This purely symbolic character of the currency is still somewhat disguised in the case of metal tokens. In paper money it stands out plainly.' (*Capital*, I, p. 244.)

What he is arguing against is the view that money can be completely autonomous, 'a convenient technical device which has been introduced into the sphere of exchange from the outside'. (*Critique of Political Economy*, p. 57); the product of a convention rather than of a 'blind' social process. He maintains that there are limits to the extent that paper money can supersede commodity money, in effect rejecting a bifurcation of economic relations into the 'money' and the 'real'. In maintaining that there must be an 'intrinsic connection between money and labour which posits exchange value' (*Critique of Political Economy*, p. 57), Marx is denying that value and price are two completely separate variables.

This does not, however, mean that Marx sees value and price as *identical*. Marx expressly criticised Bailey for making this reduction (see *Theories of Surplus Value*, Part 3, p. 147). There is for Marx both a continuity and a difference between value and price, irrespective of whether price is denominated in gold or in paper.

To summarise: in the argument of *Capital*, labour-time, value, and exchange-value (price) are not three discretely distinct variables, nor are they identical with one another. There is a continuity as well as a difference between all three. The relation between them (in any combination) is *not* posed in terms of an independent variable determining a dependent variable.

3. The measure of value: labour-time and money

One implication of the above argument is that the analysis of *Capital* is not predicated on the possibility of calculating values directly in terms of labour-time, quite independently of price, calculated in terms of money (or some numeraire); whereas, as we have already noted, this possibility is central to many readings of the 'labour theory of value' variety. Misconceptions are encouraged here by the fact that in *Capital*, Marx does not deal with this point explicitly at any length, simply referring us in a footnote to the *Critique of Political Economy* (see *Capital*, I, p. 188). Turning to the latter, we find this point discussed in the context of a consideration of Gray's labour-money scheme.⁷ Gray proposed that a national bank should find out the labour-time expended in the production of various commodities; and in exchange for his commodity the producer would receive an official certificate of its value, consisting of a receipt for as much labour-time as his commodity contained. Marx objects to this on the grounds that it assumes

'that commodities could be directly compared with one another as products of social labour. But they are only comparable as the things they are. Commodities are the direct products of isolated independent individual kinds of labour, and through their alienation in the course of individual exchange they must prove that they are general social labour, in other words, on the basis of commodity production, labour becomes social labour only as a result of the universal alienation of individual kinds of labour. But as Gray presupposes that the labour-time contained in commodities is *immediately social* labour-time, he presupposes that it is communal labour-time of directly associated individuals'. (*Critique of Political Economy*, p. 85.)

In other words, the labour-time that can be directly measured in capitalist economies in terms of hours, quite independent of price, is the particular labour-time of particular individuals: labour-time in its private and concrete aspect. This is not the aspect objectified as value, which is its social and abstract aspect. As Marx put it in an earlier passage in *Critique of Political Economy*:

'Social labour-time exists in these commodities in a latent state, so to speak, and becomes evident only in the course of their exchange. The point of departure is not the labour of individuals considered as social labour, but on the contrary the particular kinds of labour of private individuals ... Universal social labour is consequently not a ready-made pre-requisite but an emerging result.' (Op. cit., p. 45.)

The social necessity of labour in a capitalist economy cannot be determined independent of the price-form: hence values cannot be calculated or observed independently of prices.

But in that case what are we to make of Marx's repeated statements that labour-time is the measure of value? It is not surprising that this leads to misunderstandings, because in *Capital* Marx does not highlight the conceptual distinction which he makes between an 'immanent' or 'intrinsic' measure, and an 'external' measure, which is the mode of appearance of the 'immanent' measure.

This distinction is implicit in the example of the measurement of weight (*Capital*, I, p. 148-9), and briefly stated at the beginning of the chapter on Money. Viz:

‘Money as the measure of value is the necessary form of appearance of the measure of value which is immanent in commodities, namely labour-time.’ (*Capital*, I, p. 188.)

It is only in the critique of Bailey (in *Theories of Surplus Value*, Part 3, p. 124-159) that this distinction is explicitly discussed. The ‘immanent’ measure refers to the characteristics of something that allow it to be measurable as pure quantity; the ‘external measure refers to the medium in which the measurements of this quantity are actually made, the scale used, etc. The concept of ‘immanent’ measure does not mean that the ‘external’ measure is ‘given’ by the object being measured. There is room for convention in the choice of a particular medium of measurement, calibration of scale of measurement, etc. It is not, therefore, a matter of counter-posing a realist to a formalist theory of measurement (as Cutler et al., 1977, suggest p. 15). Rather it is a matter of insisting that there are both realist and formalist aspects to cardinal measurability (i.e. measurability as absolute quantity, not simply as bigger or smaller). Things that are cardinally measurable can be added or subtracted to one another, not merely ranked in order of size, (ranking is ordinal measurability).

A useful discussion of this issue is to be found in Georgescu-Roegen, who emphasises that:

‘Cardinal measurability, therefore, is not a measure just like any other, but it reflects a particular physical property of a category of things.’ (Op. cit., p. 49.)

Only things with certain real properties can be cardinally measured. This is the point that Marx is making with his concept of ‘immanent’ measure, and that he makes in the example, in *Capital*, I, of the measure of weight (p. 148-9). The external measure of weight is quantities of iron (and there is of course a conventional choice to be made about whether to calibrate them in ounces or grammes, or whether, indeed, to use iron, rather than, say, steel). But unless both the iron and whatever it is being used to weigh (in Marx’s example, a sugar loaf) both have weight, iron cannot express the weight of the sugar loaf. Weight is the ‘immanent’ measure. But it can only be actually measured in terms of a comparison between two objects, both of which have weight and one of which is the ‘external’ measure, whose weight is pre-supposed.

Thus when Marx says that labour-time is the measure of value, he means that the value of a commodity is measurable as pure quantity because it is an objectification of abstract labour, i.e. of ‘indifferent’ labour-time, hours of which can be added to or subtracted from one another. As such, as an objectification of pure duration of labour, it has cardinal measurability. This would not be the case if the commodity were simply a product of labour, an objectification of labour in its concrete aspect. For concrete labour is not cardinally measurable as pure time. Hours spent on tailoring and hours spent on weaving are qualitatively different:

they can no more be added or subtracted to one another than apples can be added to or subtracted from pears. We can rank concrete labour in terms of hours spent in each task, just as we can rank apples and pears, and say which we have more of. But we can't measure the total quantity of labour in terms of hours, for we have no reason for supposing that one hour of weaving contains as much labour as one hour of tailoring, since they are qualitatively different.

Thus far from entailing that the *medium* of measurement of value must be labour-time, the argument that labour-time is the (immanent) measure of value entails that labour-time *cannot* be the medium of measurement. For we cannot, in the actual labour-time we can observe, separate the abstract from the concrete aspect. The only way that labour-time can be posed as the medium of measurement is by making the arbitrary assumption that there is no qualitative difference between different kinds of labour, an assumption that Marx precisely refuses to make with his insistence on the importance of the form of labour.

It is surprising that Cutler et al., 1977, who emphasise their critique of the supposed function of labour-time as a social standard of measurement in *Capital*, do not refer to Marx's distinction between 'immanent' and 'external' measure. Had they done so, they might have realised that it is *money*, and not labour-time, which functions as the social standard of measurement, in Marx's *Capital*, as in capitalist society itself. The reason that labour-time is stressed as the measure of value, is to argue that money in itself does not make the products of labour commensurable. They are only commensurable insofar as they are objectifications of the abstract aspect of labour.

None of these confusions are new. Unfortunately the following comment that Marx made on Boisguillebert⁸ remains of relevance today:

'Boisguillebert's work proves that it is possible to regard labour-time as the measure of the value of commodities, while confusing the labour which is materialised in the exchange value of commodities and measured in time units with the direct physical activity of individuals.' (*Critique of Political Economy*, p. 55.)

One implication of this discussion of the measure of value which we should note is that the value-magnitude equations which Marx uses in *Capital*, do not refer to directly observable labour-time magnitudes (the direct physical activity of individuals), but are a way of indicating the intrinsic character, or substance, of the directly observable money magnitudes. Marx generally introduces these equations in their general form e.g. the value of a commodity = $(C + V) + S$; and then gives a specific example. These specific examples are always couched in money terms, *never* in terms of hours of labour-time. For example, the value of a commodity = (£410 constant + £90 variable) + £90 surplus (cf. *Capital*, I, p. 320). This does not mean that Marx is identifying values and prices; rather that he is indicating the inner value character of monetary magnitudes. The reason why Marx does not simply work at the level of money is that he wants to uncover social relations, such as the rate of surplus-value, which do not directly appear in money form.

Perhaps we can summarise this argument by saying that what Marx proposes is that in a capitalist economy (labour)-time becomes money in a more

than purely metaphorical sense. Labour-time and money are not posed as discretely distinct variables which have to be brought into correspondence. Rather the relation between them is posed as one of both continuity and difference. Significantly the metaphors used to characterise this relation are not mechanical ('articulation'), nor mathematical/logical ('correspondence', 'approximation') but chemical and biological terms ('crystallisation', 'incarnation', 'embodiment', 'metabolism', 'metamorphosis'). The idea they carry is that of 'change of form'.

4. The analysis of form determination: the method of historical materialism.

Some may feel we have proved too much. They will suggest that in demonstrating that Marx's value theory has been misread, we have also demonstrated that it is incoherent; that it must fail to provide a proper explanation of labour, or prices, or anything else, because it does not pose determinants completely independent of what is determined. Surely, it will be said, this must inevitably make the argument 'circular'. This would be the case if Marx were seeking to provide explanations *ab initio*, were seeking to explain the 'origins' of phenomena in factors external to them; to set out their necessary and sufficient conditions of existence in terms of combinations of other factors, in the manner of an economic or sociological model. *But this was not Marx's project.*

Marx saw the determination of social forms as an historical process; a process eventuating through time in which every precipitated form becomes in turn dissolved, changes into a new form, a process whose dynamic is internal to it, which has no external 'cause', existing outside of history, of which it is an effect. This entails a view of the world as a qualitatively changing continuum, not an assembly of discretely distinct forms (see Oilman, 1976, especially Chapters 2 and 3). There is no methodological preface to *Capital* which systematically expounds this view, but there are indications of it in the Post-face to the Second Edition of *Capital*, I, where we are told that Marx's main concern with phenomena is

'the law of their variation, of their development, i.e. of their transition from one form into another, from one series of connections into a different one.'
(Op. cit., p. 100.)

and that,

'economic life offers us a phenomenon analogous to the history of evolution in other branches of biology'. (Op. cit., p. 101.)

This view of the determination of social forms is expounded more systematically by Engels in *Anti-Duhring*, an exposition read in manuscript by Marx and issued with his knowledge (see *Anti-Duhring*, p. 14). In it Engels writes that

'Political economy is therefore essentially a *historical* science. It deals with material that is historical, that is, constantly changing. (Op. cit. p. 204.)

This view of form determination as an historical process is not simply a matter of noting that the social forms of a particular epoch have not always existed (see Banaji, 1976, p. 37-8). It is a matter of analysing them as determinate and yet transient: as the Marxist historian Edward Thompson puts it,

‘In investigating history we are not flicking through a series of ‘stills’, each of which shows us a moment of social time transfixed into a single eternal pose: for each of these stills is not only a moment of being but also a moment of becoming ... Any historical moment is both the result of prior process and an index towards the direction of its future flow.’ (Thompson, 1978, p. 239.)

The method of analysis appropriate for analysing historical process is not the mathematico-logical method of specifying independent and dependent variables, and their relation. Such a method can only identify static structures, and is forced to pose a qualitative change as a sudden discontinuity, a quantum leap between structures; and not as a process, a qualitatively changing continuum. (See Georgescu-Roegen, 1966, p. 29-41 for a useful discussion of this issue.) The point is that to analyse historical process we need ‘a different kind of logic, appropriate to phenomena which are always in movement’. (Thompson, 1978, p. 230.)

But what kind of logic? Trying to explain the determination of a form by describing the succession of previous forms will not do. This only tells us what came after what; not how forms are crystallised and might re-dissolve. And in any case, where are we to start such a sequence, and how can we avoid posing the starting point as an ‘origin’, itself outside the historical process? Marx rejects this approach as early as 1844; in the *Economic and Philosophical Manuscripts* we find:

‘We must avoid repeating the mistake of the political economist who bases his explanations on some imaginary primordial condition. Such a primordial condition explains nothing.’ (*Early Writings*, p. 323.)

Such a sequential approach also finds it difficult to avoid posing the earlier forms as inevitably leading to the later, a problem discussed by Marx in the *1857 Introduction*; this discussion concludes:

‘It would therefore be unfeasible and wrong to let the economic categories follow one another in the same sequence as that in which they were historically decisive. Their sequence is determined, rather, by their relation to one another in modern bourgeois society, which is precisely the opposite of that which seems to be their natural order or which corresponds to historical development. The point is not the historic position of the economic relations in the succession of different forms of society ... Rather, their order within modern bourgeois society.’ (Op. cit., p. 107-8.)

This is an elaboration of the conclusion of 1844:

'We shall start out from a *present day* economic fact.' (*Early Writings*, p. 323).

In other words, we start from the form that we want to understand, and we do not go backwards in time; rather we consider how to treat it as the precipitate of an on-going process without detaching it from that process.

Marx's solution was not to go *outside* the form looking for factors to explain it, but to go *inside* the form, to probe beneath its immediately apparent appearance. (See Banaji, this volume, pp. 17-21 for a detailed discussion of this point.) Going inside the form is achieved by treating it as the temporary precipitate of opposed *potentia*; what Thompson calls a moment of becoming, a moment of co-existent opposed possibilities, 'double-edged and double-tongued' (Thompson, 1978, p. 305-6). But these opposed *potentia* are not discretely distinct building blocks; rather they are different aspects of the continuum of forms in process, they share a continuity as well as a difference. It is in this sense that Marx treats determinate forms as embodiments of contradiction. In the same way elliptical motion can be treated as the resultant of two opposing *potentia*: a tendency of one body to continually move away from another, and an opposing tendency to move towards it. (Cf. *Capital*, I, p. 198.)

These different, counter-posed aspects are often referred to by Marx as 'determinants' or 'determinations' (just as the opposed movements whose resultant is the ellipse are referred to as 'determinants'). But that does not mean that the form is produced or caused by the 'determination' or 'determinants' acting in some autonomous way. For instance, Marx writes that the case of Robinson Crusoe contains 'all the essential determinants of value'. (*Capital*, I, p. 170), but he quite clearly does not mean that Robinson Crusoe's labour is objectified as value. In fact, Marx goes further and claims that the determinants of value 'necessarily concern mankind' 'in all situations' (*Capital*, I, p. 164); but he quite clearly does not mean that value is eternally present. The point is that the determinants are not independent variables, but are simply aspects, one-sided abstractions singled out as a way of analysing the form.

The analysis of a form into its determinants is, however, only the first phase of the investigation. After this phase of individuation of a moment from the historical process, and dissection of the tendencies or aspects counterposed in it, comes the phase of synthesis, of reconstitution of the appearance of the form, and of re-immersing it in process (see Banaji, this volume, p. 28). This second phase does not simply take us back to where we began, but beyond it, because it enables us to understand our starting point in a different light, as predicated on other aspects of a continuous material process. It suggests new abstractions which need to be made from a different angle, in order to capture more of the process. The phase of synthesis brings us back to continuities which the phase of analysis has deliberately severed. The whole method moves in an ever-widening spiral, taking account of more and more aspects of the historical process from which the starting point was individuated and detached.

What kind of knowledge does this method give? It cannot give a Cartesian Absolute Knowledge of the world, its status as true knowledge validated by some epistemological principle. Rather it is based upon a rejection of that aspiration as a

form of idealism (see Ruben, 1977, especially p. 99). It is taken for granted, in this method, that the world has a material existence outside our attempts to understand it; and that any category we use to cut up the continuum of the material world can only capture a partial knowledge, a particular aspect seen from a certain vantage point. This is explicitly recognised in the discussion of method in the *1857 Introduction*:

‘for example, the simplest economic category, say e.g. exchange value, presupposes population, moreover a population producing in specific relations; as well as a certain kind of family, or commune, or state, etc. It can never exist other than as *an abstract, one-sided relation within an already given, concrete, living whole.*’ (*1857 Introduction*, p. 101, emphasis added.)

The second phase of the investigation, the phase of synthesis helps to correct the one-sidedness intrinsic to the first phase of analysis, by suggesting other perspectives which must be investigated; new, interrelated ways of cutting up the continuum. These in turn are necessarily one-sided, but the phase of synthesis based on them again helps to correct their one-sidedness. So by following this procedure a more and more complete understanding of the material world can be gained ‘in which thought appropriates the concrete’. But there remains always a necessary distance between our understanding of the world, and the world itself:

‘The totality as it appears in the head, as a totality of thoughts, is a product of a thinking head, which appropriates the world in the only way it can, a way different from artistic, religious, practical and mental appropriation of this world. The real subject retains its autonomous existence outside the head just as before.’ (*1857 Introduction*, p. 101.)

The appropriation of the world can never be completed in thought; it requires practical action.

We must now examine this method at work in Marx’s theory of value. None of the argument so far entails that there are no ambiguities and inconsistencies in that theory, for we have not yet subjected Marx’s theory of value to critical scrutiny. There is certainly a danger in using this method of analysis, a danger which Marx explicitly recognised, that ‘the movement of the categories appears as the real act of production’ (*1857 Introduction*, p. 101). That is, a category of analysis, which as such is a one-sided abstraction, becomes transformed into a self-developing entity; and the historical process becomes transformed into the expression of this entity. The categories of analysis produce our knowledge of the world: but they do not produce the world itself. Marx argues that Hegel

‘fell into the illusion of conceiving the real as the product of thought concentrating itself, probing its own depths, and unfolding itself out of itself, by itself.’ (*1857 Introduction*, p. 101.)

In my view the 'capital-logic' approach⁹ falls into the same illusion, taking capital not as a one-sided abstraction, a category of analysis, but as an entity; and understanding the historical process of form determination as the product of the self-development of this entity. One of the key questions considered in the next Section is how far Marx himself succumbed to this illusion.

MARX'S VALUE THEORY OF LABOUR

1. Aspects of labour: social and private, abstract and concrete

In analysing the form of labour in capitalist society, Marx made use of four categories of labour, the opposing pair, abstract and concrete; and the opposing pair, social and private. He did not begin the argument of *Capital* (or *Critique of Political Economy*) from these categories, but I think it is easier to evaluate his argument if we first consider what these categories mean; and what Marx claimed to have established about the relation between these aspects of labour in capitalist society, as determinants of the form of labour.

The first point I want to make is that these are *not* concepts of different *types* of labour. It is not that some labour is private and some social; some concrete and some abstract. Or that labour is at some stage private, and becomes at another stage social, or at some stage concrete, and becomes at another stage abstract. They are concepts of different *aspects* of labour (cf. the 'two-fold nature' or 'dual character' of labour embodied in commodities); and as such they are all one-sided abstractions.

The second point is that they are concepts pertaining to all epochs of history. They are concepts of some of those 'determinations which belong to all epochs ... No production will be thinkable without them'. (1857 *Introduction*, p. 85.) Where historical epochs differ is the way that these aspects are represented, i.e. the way they appear. Here we need to distinguish between 'formless' appearance as scattered, seemingly unconnected symptoms, and crystallisation into a distinct form of appearance, a representation which enables the aspect to be grasped as a unity: and which gives what Marx calls 'a practical truth' to the abstraction (cf. 1857 *Introduction*, p. 105). Marx did *not* regard abstractions which do not have such a 'practical truth' as invalid (cf. 1857 *Introduction*, p. 85, p. 105). The criterion Marx put forward for a valid abstraction was that it should be 'a rational abstraction in so far as it really brings out and fixes the common element and thus saves us repetition'. (1857 *Introduction*, p. 85.) What he suggested was that such valid abstractions do not have the same status for all historical epochs: they have a different significance in epochs in which they have a 'practical truth'. In such circumstances, the process bringing to light the common aspect is not only a mental process. The mental process has its correlate in a real social process which gives the common aspect a distinct form of appearance, albeit quite possibly a fetishised form of appearance, so that the common aspect represented may be misrecognised if we go only by appearances.

The third point is that the two pairs of abstractions (abstract/concrete; social/private) must not be collapsed into one. There is a tendency to suggest that 'abstract' means the same as 'social', and 'concrete' the same as 'private'. (See Kay, this volume, p. 56; and Hussain, this volume, p. 95). There *is* some

overlapping in meaning, but the two pairs, as concepts, are nevertheless distinct. What Marx argues is that in the specific conditions of capitalism, the distinctions between the two pairs tend, as a practical reality, to be obliterated: the concrete aspect of labour is 'privatised', and the social aspect of labour is 'abstracted'. These points are not uncontroversial, so it is necessary to deal with them in more depth.

There is a tendency to suppose that Marx analysed capitalism as a form of production in which labour starts off as 'concrete' and 'private'; in the process of exchange this labour, by now embodied in products, is then transformed into a different type of labour 'abstract' and 'social' (cf. in particular Rubin, 1973, p. 70; also Arthur, 1978, p. 93-5). Certainly Marx does refer to commodities as 'the products of private individuals who work independently of each other'. (*Capital*, I, p. 165); and claims that 'Universal social labour is consequently not a ready made pre-requisite but an emerging result.' (*Critique of Political Economy*, p. 45.) And he does discuss the labour process 'independently of any specific social formation'. (*Capital*, I, p. 283.) But this does not signify a departure from his position that

'Individuals producing in society — hence socially determined individual production — is, of course, the point of departure'. (*1857 Introduction*, p. 83.)

Rather, it signifies his analysis of the problem that

'in this society of free competition, the individual appears detached from the natural bonds etc. which in earlier historical periods make him the accessory of a definite and limited human conglomerate'. (*1857 Introduction*, p. 83.)

In *Capital*, Marx continued to begin from the position that

'as soon as men start to work for each other in any way, their labour also assumes a social form'. (*Capital*, I, p. 164.)

The problem was to locate this social form in a capitalist society, where it appeared that men as producers are private individuals free from social forms; or rather that social forms have no independent effectivity and are simply the result of private decisions, individual choices; the cash nexus simply a way of aggregating and reconciling these choices. Marx contrasted this form of appearance with examples of pre-capitalist societies, in which the social forms constraining individuals in production were immediately apparent: the patriarchal family, feudal rights and duties etc. (See *Critique of Political Economy*, p. 32-4; *Capital*, I, p. 169-171.) When Marx refers to 'private individuals' in *Capital*, he is referring precisely to this appearance:

'Since the producers do not come into social contact until they exchange the products of their labour, the specific social characteristics of their private labour appear only within this exchange.' (*Capital*, I, p. 165.)

(We should perhaps note that Marx is at this stage of the discussion abstracting from the *internal* organisation of each producing unit.) What Marx means is that capitalist production is private in the sense that the social relation of each producing unit to all others is *latent*, hidden; not in the sense that labour as an activity has no social character, and only acquires one *after* its embodiment in commodities. Marx's argument is not that the process of exchange *confers* a social form on hitherto private labour — but that it brings out the social character which is already latent, albeit bringing it out in a fetishised form, as a 'social relation between things'.

The concept of 'concrete labour' overlaps with the concept of 'private labour', since it is a concept of subjective human activity 'determined by its aim, mode of operation, object, means and result' (*Capital*, I, p. 132). What it adds to the notion of the individual, subjective aspects of human labour is the notion of labour as 'a process between man and nature' (*Capital*, I, p. 283) in which labour takes many different, specific forms: tailoring, weaving, spinning etc. etc. It is the concept of diversity and heterogeneity of labour. The 'private' and 'concrete' aspects of labour are in fact coincidental in capitalist societies, where the different kinds of labour appear to be undertaken as a result of the choices made by the individuals doing them (even if very constrained choices). This is not the case in pre-capitalist forms of production, where,

'The natural form of labour, its particularity ... is here its immediate social form.' (*Capital*, I, p. 170);

and individuals appear to have little choice about the kind of work they do.

The term 'concrete labour' is rather unfortunate, in that it is a hindrance to our recognition that 'concrete labour' is a one-sided abstraction, the concept *not* of labour as 'the concentration of many determinations', as a living whole, a determinate form, (which is how Marx uses the term 'concrete' in the *1857 Introduction*); but rather the concept of certain aspects of labour (*one* of the 'many determinations'). The concept of concrete labour abstracts from labour as a living whole its subjective, qualitative, diverse aspects, which are in all epochs reflected as characteristics of the product in terms of its use-value.

Marx's discussion of the labour process 'independently of any specific social formation' (*Capital*, I, p. 283) does not license us to take concrete labour as the concept of a 'given', determinate reality upon which social relations are superimposed. He specifically mentions that this is a presentation of 'simple and abstract elements' (*Capital*, I, p. 290); and that 'labour process' and 'valorisation process' are 'two *aspects* of the production process' of commodities. (*Capital* I, p. 304, emphasis added). Failure to take note of this tends to lead either in the direction of technological determinism (cf. Rubin, 1973), or to posing the socialist project in terms of the impossible task of removing *any* social mediation between the individual and her work (cf. Colletti, 1976, especially p. 66).

It is generally accepted that concrete labour is a category pertinent to all epochs; but the same is not accepted of abstract labour. (Hussain, this volume, and Itoh, 1976, are exceptions).¹⁰ Generally writers who stress the importance of abstract labour insist that it is a category pertinent only to commodity production

(cf. Rubin, 1973; Arthur, 1976 and 1978). To argue otherwise, it is suggested, makes the theory of value an 'eternal' theory, true of all societies, and not specific to capitalism. But this implication does not seem to me to follow from the proposition that abstract labour is a category pertinent to all epochs. The belief that it does possibly stems from a misreading of Marx's claim that it is abstract labour which forms the substance of value as a definition of abstract labour, or the assumption that abstract labour is the concept of a type of labour, and must therefore produce *something*, a something which Marx calls 'value'. But as we shall presently see, the categories of value and abstract labour are arrived at independently, not derived from one another.

At this point we simply note that abstract labour, like concrete labour, is not the concept of a *type* of labour, but of certain aspects of human labour. This is certainly indicated by the phrase 'the dual character of the labour embodied in commodities'. In *Capital* these aspects are at first defined only negatively, as aspects which remain when we disregard the particular, useful, aspect of labour (*Capital*, I, p. 128), and this has perhaps contributed to the confusion. But these aspects are subsequently characterised as those of 'quantities of homogeneous human labour' (op. cit., p. 128), and of 'human labour pure and simple, the expenditure of human labour in general' (op. cit., p. 135). In other words, it is the concept of the unity or similarity of human labour, differentiated simply in terms of quantity, duration. It is *not* an assumption that all work is physiologically identical. Rather, it draws attention to the fact that all work takes time and effort, irrespective of what kind of work it is. Marx specifically claims that this aspect of labour 'in all situations ... must necessarily concern mankind, although not to the same degree at different stages of development' (*Capital*, I, p. 164), and offers a brief discussion of the way it is of concern in the case of Robinson Crusoe, European feudalism, peasant family production and communal production (*Capital*, I, p. 169-72).

The concept of abstract labour overlaps somewhat with the concept of social labour, in that both view the activity of labour 'objectively' in detachment from particular individuals. Both investigate labour from the point of view of the collectivity, looking at any particular expenditure of labour-power not as an isolated self-generating activity, but as part of a collective effort. What the concept of abstract labour adds to the concept of social labour is the idea of *quantity*, labour is viewed not simply as part of a collective effort, but as a definite fraction of a quantitatively specified total.

The four categories that we have been discussing are thus concepts of four *potentia*, which can never exist on their own as determinate forms of labour. Labour always has its abstract and concrete, its social and private aspects. Marx poses any particular determinate form of labour as a precipitate of these four different aspects of labour. What is specific to a particular kind of society is the relation of these aspects to one another and the way in which they are represented in the precipitated forms. Marx concludes that in capitalist society the abstract aspect is *dominant*. The social character of labour is established precisely through the representation of the abstract aspect of labour:

'Only because the labour-time of the spinner and the labour-time of the weaver represent universal labour-time ... is the social aspect of the labour

of the two individuals represented for each of them ...' (*Critique of Political Economy*, p. 33).

'the specific social character of private labours carried on independently of each other consists in their equality as human labour.' (*Capital*, I, p. 167).

The concrete and private aspects of labour are mediated by the abstract aspect. The labour of the individual producer

'can satisfy the manifold needs of the individual producer himself only in so far as every particular kind of useful private labour can be exchanged with i.e. counts as the equal of, every other kind of useful private labour. Equality in the full sense between different kinds of labour can be arrived at only if we abstract from their real inequality, if we reduce them to the characteristic they have in common, that of being the expenditure of human labour-power, of human labour in the abstract.' (*Capital*, I, p. 166).

A useful summary of Marx's conclusion, that in the determination of the form of labour in capitalist society it is the abstract aspect which is dominant, can be found in *Results of the Immediate Process of Production*, originally planned as Part Seven of Volume I of *Capital*, and serving both as a summary of Volume I and a bridge to Volume II. Here Marx writes that, in the social terms of a capitalist society,

'labour does not count as a productive activity with specific utility, but simply as a value-creating substance, as social labour in general which is in the act of objectifying itself, and whose sole feature of interest is its *quantity*.' (*Results ...*, p. 1012).

This does not mean that the particular useful qualities of labour, its concrete aspect, do not matter, but rather that they matter only in so far as they affect the quantity of human labour expended in production. The domination of abstract labour signifies 'a social formation in which the process of production has mastery over man, instead of the opposite' (*Capital*, I, p. 175). For Marx, money and capital are both forms of this domination. The theory of value is the foundation for this conclusion.

Thus, Marx's argument is not that the abstract aspect of labour is the product of capitalist social relations, but that the latter are characterised by the dominance of the abstract aspect over other aspects of labour. In these conditions, abstract labour comes to have a 'practical truth' because the unity of human labour, its differentiation simply in terms of quantity of labour, is not simply recognised in a mental process, but has a correlate in a real social process, that goes on quite independently of how we reason about it. Marx argues, not that some particular type of labour can in capitalist society be identified as purely abstract labour, but that the abstract aspect of labour is 'objectified' or 'crystallised', that 'the equality of the kinds of human labour takes on a physical form' (*Capital*, I, p. 164). The objectification of the concrete aspect of labour is universal, but the objectification

of the abstract aspect of labour is not: it is specific to capitalist social relations. This objectification at some stages in accumulation of capital may take the form of 'Labour in the form of standardised motion patterns', labour as 'an interchangeable part' and 'in this form come ever closer to corresponding, in life, to the abstraction employed by Marx in analysis of the capitalist mode of production' (Braverman, 1974, p. 182). It may take the form of mobility of labour: (cf. *Results ...*, p. 10134; this is also stressed by Arthur, 1978). But its most basic and simplest form is the objectification of abstract labour as a characteristic of the product of labour, reflected in its exchange value. And for this reason Marx begins the exposition of *Capital* with

'the simplest social form in which the labour product is represented in contemporary society, and this is the 'commodity' (*Marginal Notes on Wagner*, p. 50).

We must now consider the argument by which he tries to establish that the abstract aspect of labour is objectified, and the way in which this establishes the domination of abstract labour.

2. The phase of analysis: from the commodity to value

The first phase of Marx's theory of value begins from the commodity¹¹ and proceeds to value, the substance of which is argued to be objectified abstract labour. The commodity is analysed dialectically as a moment of co-existence of two opposed aspects, use value and exchange value; and then exchange value, as the aspect specific to capitalism is subject to further scrutiny. The movement of the argument from exchange value to value and its substance does present some problems, and has provoked charges from Bohm-Bawerk¹² to Cutler et al., that the conclusions Marx draws cannot legitimately be drawn.

The problem is two-fold: the status of the argument that in exchange commodities are made equivalent to one another, signifying that 'a common element of identical magnitude exists in two different things.' (*Capital*, I, p. 127), and the argument that this common element is an objectification of abstract labour. We might note that the questionable status of Marx's arguments here has largely been overlooked by the 'labour theory of value' tradition of interpretation, because it has ignored the structure of Marx's own argument, and argued from pre-given quantities of labour to prices. I think there is undoubtedly a problem in the way Marx presents his argument, so that some results quite easily appear to be deductions from a formalist and ahistorical concept of exchange. But in my view the analysis is not inherently formalist, and formalist elements in its presentation can be replaced with more satisfactory arguments, some of which Marx develops elsewhere, particularly in *Theories of Surplus Value*.

Let us first consider the argument about exchange, equivalence and the 'common element'.

'Let us now take two commodities, for example corn and iron. Whatever their exchange relation may be, it can always be represented by an equation in which a given quantity of corn is equated to some quantity of iron, for

instance 1 quarter of corn = x cwt. of iron. What does this equation signify? It signifies that a common element of identical magnitude exists in two different things, in 1 quarter of corn and similarly in x cwt. of iron. Both are therefore equal to a third thing, which in itself is neither the one nor the other. Each of them, so far as it is exchange value, must therefore be reducible to this third thing.' (*Capital*, I, p. 127).

The above passage does tend to suggest that (as Cutler et al., 1977, claim) Marx regards exchange *per se* as an act which reduces the goods exchanged to instantiations of a common element, *equates* them, and deduces his results from this formal concept of exchange. This impression is reinforced by a later passage where Marx approvingly quotes Aristotle's dictum:

'There can be no exchange without equality, and no equality without commensurability.' (*Capital*, I, p. 151.)

The objection that Cutler et al. raise is that while for a transaction to be an exchange, it is necessary that both parties to it agree to the terms of the exchange, there is no necessity for this to entail the reduction of the goods exchanged to a common element (op. cit., p. 14). It is not hard to find examples of exchange where such a reduction is absent, even in developed capitalist societies — for example, the exchange of gifts at Christmas; the exchange of the products of domestic labour in the household. (See also Arthur, this volume, p. 71.) The exchanges here depend very specifically on the kind of goods exchanged, and upon particular relations of personal obligation and reciprocity. In such exchanges the goods exchanged are not reduced to a common element, are not made equivalents; they are not commensurated, though they may be compared. Such exchanges are not, however, accomplished by buying and selling. Clearly, in considering the exchange of commodities, Marx *is* considering a process of sale and purchase, even if he does not emphasise this at this particular point in the argument. Moreover, the example of exchange of corn and iron, cited above, is simply *one* instance of exchange abstracted from a very large number of exchanges, as Marx's preceding paragraph makes clear (*Capital*, I, p. 127). The characteristics of the exchange of corn and iron are not held to depend simply on that one exchange, considered in isolation, but on the whole process of exchange from which this one example has been abstracted. Although Marx does not make the point very clearly, I think we can conclude that he is not considering exchange *per se*, but a particular form of exchange, capitalist commodity exchange. His argument that such exchange is a process of equation, of reduction of the goods exchanged to equivalence is not an argument from a formal, a-historical concept of exchange, but from a *specific* social relation, capitalist commodity exchange.

This reading is supported by Marx's much more explicit discussion of this point in the course of his critique of Bailey, in *Theories of Surplus Value*, Part 3. Here Marx specifically argues *against* the idea that a single act of exchange in itself reduces the goods exchanged to equivalence (see *Theories of Surplus Value*, Part 3, p. 132; p. 142; p. 144). Rather he argues that reduction to equivalence depends upon the general exchangeability, through the market, of every commodity with every other commodity:

‘the commodity has a thousand different kinds of value ... as many kinds of value as there are commodities in existence, all these thousand expressions always express *the same value*. The best proof of this is that all these different expressions are *equivalents* which not only can replace one another in this expression, but do replace one another in exchange itself.’ (*Theories of Surplus Value*, Part 3, p. 147).

The same point is made in *Critique of Political Economy*:

‘A commodity functions as an exchange value if it can freely take the place of a definite quantity of any other commodity, irrespective of whether or not it constitutes a use-value for the owner of the other commodity.’ (Op. cit., p. 44).

This general exchangeability does not simply depend on the individual characteristics of the owners of the goods, or of the goods themselves, for the rates at which the goods in any particular exchange are exchanged depend not only on the parties to that transaction, but upon all the other exchanges simultaneously taking place. This kind of exchange is a social, not an individual process. The abstraction of a commodity with *an* exchange value can only be made on the presupposition that this commodity is simply one of a very large number of interchangeable commodities, a presupposition that Marx has made clear in the opening sentence of *Capital*.

‘The wealth of societies in which the capitalist mode of production prevails appears as an ‘immense collection of commodities’.’ (*Capital*, I, p. 125).

In fact, as will later emerge, this kind of general interchangeability of goods can only become the dominant form of exchange on the basis of capitalist relations of production, in which labour is separated from the means of production. (See Brenner, 1977, especially p. 51). But in Chapter 1, the categories for analysing capitalist relations of production have not been elaborated, so this point is not explicitly made. (Although it is clear from *Grundrisse*, p. 509, that Marx was well aware of it.) To summarise: Marx’s claim that exchange of commodities entails their equivalence does not derive from an ahistorical and formal *concept* of exchange, but from observation of a specific, capitalist process of exchange, in which goods actually *are* socially commensurated, the visible expression of which is their prices.

Marx is not alone in describing this kind of exchange in terms of equivalence: it is a general feature of the work of economists of all kinds.¹³ Where Marx differs is in arguing that such equivalence needs a separate concept, ‘value’. Why, for instance, can we not treat this equivalence simply by selecting one commodity as the numeraire in terms of which the exchange values of all other commodities are presented? Does not this correspond to the capitalist economy in which the money commodity serves as numeraire? And if so, surely we must agree with Bailey that value is a ‘scholastic invention’ (*Theories of Surplus Value*, Part 3, p. 137).

The argument about the 'common element' that Marx gives in *Capital* is quite inadequate to deal with the above point. In the first section of Chapter 1 he gives the famous 'simple geometrical example':

'In order to determine and compare the areas of all rectilinear figures we split them up into triangles. Then the triangle itself is reduced to an expression totally different from its visible shape: half the product of the base and the altitude. In the same way the exchange values of commodities must be reduced to a common element, of which they represent a greater or lesser quantity.' (Op. cit., p. 127).

But this fails to indicate why we should not follow the numeraire approach. Indeed it even encourages the latter, because it poses the question in terms of a process of reasoning and measurement that takes place in our heads. But, as Marx stresses in Section 4 of Chapter 1, the equivalence of commodities is not established in the same way as the equivalence of triangles, but as the result of a social process. The agents in this process do not seek to establish the interchangeability of all products, but simply to exchange their own products. The exchange ratios are formed as a result of an iterative, competitive process, not on the basis of rationally deduced formulae. Money emerges as universal equivalent, not as the result of a rational social convention, but from an unplanned historical process.

The critical point is that if we treat the equivalence of commodities in terms of a numeraire commodity, we must presuppose the equivalence of commodities, but we have still not answered the question 'As what do they become exchangeable?' In what relation do they stand in the social process that enables one commodity to become the numeraire? This point emerges much more clearly from Marx's discussion of Bailey in *Theories of Surplus Value*, Part 3, (p. 133-47) than it does in *Capital*. Much of the most sophisticated modern economics, whether of the Sraffian or neo-classical variety, prefers to sidestep this question by not treating the formation of exchange-values as a social process at all. It assumes exchangeability and focuses almost exclusively on the question of consistency. The central question it asks is whether a set of exchange-values (prices) can be deduced from given premises which will be consistent with some criterion set by the economist, such as the reproduction of the structure of production, or the attainment by each consumer of his 'preferred' consumption bundle, given the assumptions about how economic agents react to prices. Finding such a consistent set of exchange-values is called proving the 'existence' of an equilibrium set of exchange-values. But it is a very attenuated concept of existence, referring to the formal solution of an arithmomorphic model, not to the real world process of exchange.

An earlier generation of neo-classical economists were more robust; and so are many policy-orientated neo-classical economists today, who must eschew the theoretical rigour and purity of general equilibrium models if they are to be able to make policy prescriptions. They give the same answer to the question 'As what do commodities become exchangeable?' as was given by Bohm-Bawerk: commodities become equivalents as yielders of utility, of satisfaction. The

exchange process is explained in terms of commodity owners commensurating different commodities in terms of the satisfaction they bring. Marx rejects this view, but does not set out very clearly the reasons why, quite possibly because although this has come to be the dominant view among economists, it was not so in Marx's day.

Some of the argument of the first chapter of *Capital*, I, may give the impression that Marx denied any role to use-value in the process of exchange (cf. 'the exchange relation of commodities is characterised precisely by its abstraction from their use-values', *Capital*, I, p. 127). But as his later argument makes clear, Marx is far from denying that use-value plays an important role in the process of exchange: what he is rejecting is the idea that the *equivalence* of commodities can be explained in terms of use-value. There are, I think, two aspects to this rejection. One is that Marx argued that it is in terms of *difference* that use-value is important, not in terms of *equivalence* (cf. *Capital*, I, p. 259). The other is that Marx argued that a *purely* subjective approach to the exchange process could not capture certain crucial features of it (cf. *Theories of Surplus Value*, Part 3, p. 163).

To argue that commodities are equated as use-values entails the view that commodities are wanted for the utility (or satisfaction) they bring; their characteristics as particular use-values are simply a means to the end of getting satisfaction. Utility or satisfaction represents 'the common essence of all wants, the unique want into which all wants can be merged' (Georgescu-Roegen, 1966, p. 195).¹⁴ Marx, however, rejected this idea of the reducibility of wants to a common want.

'As use-values, commodities differ above all in quality, while as exchange values they can only differ in quantity, and therefore do not contain any atom of use value.' (*Capital*, I, p. 128).

And certainly everyday experience yields much support for the irreducibility of wants — bread cannot save someone dying of thirst.

The reducibility of wants remains inherent in most varieties of neo-classical price theory,¹⁵ even though the nineteenth century idea that the satisfaction yielded by a commodity could, in principle, be measured and the satisfactions yielded by different commodities added and subtracted, has been abandoned (see Georgescu-Roegen, 1966, chapter 3).

Marx's rejection of use-value as a basis for the equivalence of commodities does not mean, contrary to what is sometimes claimed, that Marx rejects *any* subjective element as a determinant of the exchange process. Marx was perfectly well aware that

'Commodities cannot themselves go to market and perform exchanges in their own right. We must, therefore, have recourse to their guardians, who are the possessors of commodities.' (*Capital*, I, p. 178),

and he recognised that the occasion for exchange is the desire of commodity owners (for whatever reasons) for use values other than the ones they possess. But he also recognised another aspect of the exchange process, which is that

while the formation of exchange-values is necessarily the result of the actions of commodity owners, to each commodity owner entering the market it appears that the exchange ratios are already given.¹⁶

‘These magnitudes vary continually, independently of the will, fore-knowledge and actions of the exchangers. Their own movement within society has for them the form of a movement made by things, and these things, far from being under their control, in fact control them.’ (*Capital*, I, p. 168).

In so far as each commodity owner wants to exchange his own use-value for some other use-value, the process of exchange is composed of individual, subjective acts. But in so far as the exchange-values appear to be ‘given’ to each commodity owner it is a general social process which takes place ‘behind the backs’ of the commodity owners (cf. *Capital*, I, p. 180). Marx wishes to capture in his categories *both* the subjective, individual and the social, general aspects of the process, to encompass

‘the crucial ambivalence of our human presence in our history, part-subjects, part-objects, the voluntary agents of our own involuntary determinations.’ (Thompson, 1978, p. 280).

It is, I think, for this reason that he treats the equivalence of commodities in a way that is often found extremely puzzling,¹⁷ as a *substantial* equivalence. That is, Marx does not treat this equivalence as a matter of some common characteristic in terms of which commodities are commensurated by their owners; but in terms of a unifying ‘common element’ or ‘substance’ which the commodities themselves embody, and which is designated by the separate category ‘value’. The equivalence of commodities is explained in terms of the nature of this substance, not in terms of subjective commensuration by commodity owners (cf. *Capital*, I, p. 166).

Unfortunately, Marx does not explicitly discuss the implications of treating the equivalence of commodities as ‘substantial’, and the considerations which underlie his treatment are not introduced until Section 4 of Chapter 1, ‘The Fetishism of the Commodity and its Secret.’ This encourages two kinds of misconception: the misconception that Marx’s method is formalist, his ‘common element’ simply a common characteristic in terms of which we can (subjectively) commensurate commodities; and the misconception that Marx’s method is idealist, his value substance an idealist reification of the equivalence or continuity between commodities. It was on the basis of the first misconception that Bohm-Bawerk attacked Marx’s argument. (See Kay, this volume, pp.50-54). And certainly if Marx’s procedure had been formalist in the manner postulated by Bohm-Bawerk, it would have been totally arbitrary to locate abstract labour as the common characteristic. But Bohm-Bawerk ignores the force of the term ‘substance’.

The notion that Marx’s use of the term ‘substance’ signals an idealist, metaphysical approach has more plausibility, for ‘substance’ is a term with a certain philosophical history. It has frequently been used to designate an absolute

entity which underlies and produces all particular forms. Thus in the work of Spinoza, there is a single substance, labelled 'God', and all material things or thoughts are conceived of as the modes of being of this entity. (See Oilman, 1976, p. 30.) Marx himself criticised Hegel for 'comprehending *substance* as *subject*' in *The Holy Family* (1845) (see Arthur, 1978, p. 88); but perhaps his own method in *Capital* is vulnerable to the same criticism, as is argued by Moore, 1971? Marx claims in *Theories of Surplus Value* that value 'is not an absolute, is not conceived as an entity' (op. cit., Part 3, p. 130) but how far is this true?

In my view, Marx poses commodities as substantially equivalent in the same way that in natural science, light, heat and mechanical motion are posed as substantially equivalent, as forms which are interchangeable as embodiments of a common substance, which is self-activating, in the sense of not requiring some outside intervention, some 'prime mover' to sustain it and transform it, i.e. as forms of energy. Similarly different chemicals are posed as substantially equivalent as forms of self-activating matter.¹⁸ Only with such a concept is a materialist account of the process of transformation and conservation of energy and matter possible, an account of this process as one of *natural* history, proceeding with a dynamic internal to it, and requiring no extra-natural 'cause', no *deus ex machina* to sustain it.

There is a danger that 'energy' or 'matter' will be reified into absolute entities; but properly understood, they are not discretely distinct from particular forms of energy or matter, rather they are concepts of the continuity between these different forms. Their self-activity is not posed teleologically, as goal-directed or by design. The concept of the equivalence of forms of energy or matter in terms of the substance of energy or matter is thus a materialist, not an idealist concept.

The transformation of one commodity into another, insofar as the rates of transformation are determined 'behind the backs' of the commodity owners, is akin to a process of natural history, a process that seems to have objective 'laws' of its own which operate over and above the volitions of the individuals carrying it out. Hence Marx poses this process in terms of substantial equivalence, but with 'substance' understood in materialist terms — as an abstraction with a practical reality insofar as one form of the substance is actually transformed into another form, and not in idealist terms, as an absolute entity realising its goals.

There is an important difference between the interchangeability of forms of energy, and of commodities, the substance of the equivalence in the latter case must be human. Though value appears as a relation of objects to one another, we know that it cannot be so. As Marx tartly observes:

'No scientist to date has yet discovered what natural qualities make definite proportions of snuff, tobacco and paintings 'equivalents' for one another.'
(*Theories of Surplus Value*, Part 3, p. 130).

Marx implicitly rejects the procedure of treating the process of capitalist exchange 'as if' agency could stem from some non-human source, a 'structure' or an 'invisible hand'. Though it does not appear to be so, the equivalence of commodities must essentially be a relation between people, not between the commodities as physical objects. Therefore, though the form of the relation must

be posed in terms that capture its naturalistic appearance, the content of the relation must be posed in terms that capture its human essence. Hence the substance of value must be the human self-activity, the human energy, embodied in the commodities; the commodities under consideration are,

‘products of social activity, the result of expended human energy, *materialised labour*. As objectification of social labour, all commodities are crystallisations of the same substance.’ (*Critique of Political Economy*, p. 29).

This all seems to have been so obvious to Marx that he took it for granted without discussion.¹⁹ The underlying consideration, that the equivalence of commodities is

‘only a representation in objects, an objective expression, of a relation between men, a social relation, the relationship of men to their reciprocal productive activity.’ (*Theories of Surplus Value*, Part 3, p. 147)

is not made explicit until Section 4 of Chapter 1 on the fetishism of the commodity, but is, I think, present in the argument from the outset. What Marx was concerned with making explicit was ‘the particular form which labour assumes as the substance of value’, and he often writes as if this is the major question separating him from Ricardo, rather than more fundamental questions of the object of the theory and the method of investigation (cf. *Theories of Surplus Value*, Part 2, p. 172). The social substance of commodities as values cannot be labour as such, for this has a two-fold nature, a qualitative aspect as concrete labour, as well as a quantitative aspect as abstract labour. As values, commodities differ only quantitatively, they are all interchangeable: their substance must be homogeneous, uniform. Thus we are led to the conclusion that the substance of value must be the abstract aspect of labour. As values, substantial equivalents, commodities must be objectifications of abstract labour.

‘The product of labour is an object of utility in all states of society; but it is only a historically specific epoch of development which presents the labour expended in the production of a useful article as an ‘objective’ property of that article, i.e. as its value.’ (*Capital*, I, p. 154).

This conclusion has been reached by starting from the simplest form of the product of labour, the commodity; splitting it into two aspects, use value and exchange-value; further examining exchange-value, as a historically specific form of exchange relation, and establishing what this form of appearance must presuppose as a product of a socio-historical process. The methodological premises required to establish this result are those of historical materialism; the ‘real’ premises those of capitalist commodity exchange. If they are rejected, then the result cannot be established.

The argument in this phase of analysis concludes that the equivalence of commodities presupposes the objectification of the abstract aspect of labour, but it

does not show how such objectification can take place. In fact it is a rather puzzling conclusion, as Marx signals with his use of the phrase 'phantom-like objectivity' (*Capital*, I, p. 128). The next stage of the argument, the phase of synthesis, attempts to show how objectification of abstract labour does take place, and how the abstract aspect of labour becomes dominant. At the same time it shows the problematical character of this domination, its tenuous and transient character, the fact that once achieved it is not immutably fixed, but liable to disintegration as a result of its own internal oppositions.

It has been argued by Itoh, 1976, that there is an inconsistency in the first chapter of *Capital*, I, between Sections I and II (the phase of analysis) and Section III (the phase of synthesis) because the first two sections rest on the assumption of the interchangeability of commodities, and the third points to the difficulties of this interchange, to the fact that the equivalence can break down. For Itoh this implies that there is a Ricardian residual in Marx's argument in the first two sections. I disagree with this conclusion. In my view, there is no inconsistency. It is rather that Marx begins the analysis from the most immediate appearance of the commodity, as a product of labour interchangeable with, in a relation of equivalence to, a multitude of other products; in effect, from a set of equilibrium exchange relations. This appearance does not directly signal the problematical character of the equivalence of commodities, and hence among other things lends plausibility to the idea that aggregate supply is always equal to aggregate demand (Say's Law). Marx was, I think, well aware that this appearance of equilibrium is a one-sided abstraction from a process which is fundamentally one of disequilibrium. The second phase of the argument shows the contradictions of exchange equivalence, and makes apparent the necessity of revising the impressions that stem from the immediate appearance of exchange-value.

3. The phase of synthesis: from value to price

The phase of synthesis encompasses the whole of the rest of Part One of *Capital*, I. In it Marx discusses the way that the objectification of abstract labour occurs and how this entails the dominance of abstract labour; and also shows the precarious nature of this objectification. It is about the operation of the 'law of value' which fundamentally means the 'law' of the process by which abstract labour is objectified. The term 'law' and the explicit comparison of the law of value with 'a regulative law of nature' (cf. *Capital*, I, p. 168) is once more a reference to the naturalistic aspect of this process, the fact that it takes place 'behind the backs' of the commodity owners. But it is important to note that Marx does not have a rigid, 'deterministic' concept of a 'regulative law'. He criticised such a concept in one of his earliest writings on political economy:

' ... Mill succumbs to the error, made by the entire Ricardo School, of defining *abstract law* without mentioning the fluctuations or the continual suspension by which it comes into being ... the monetary co-incidence (of cost of production and price) is succeeded by the same fluctuations and the same disparity. This is the *real* movement, then, and the above-mentioned law is no more than an abstract, contingent and one-sided moment in it.'

(‘Excerpts from James Mill’s Elements of Political Economy’, *Early Writings*, p. 260.)²⁰

And he was careful to avoid such an ‘abstract law’ in the argument of *Capital*:

‘Under capitalist production, the general law acts as the prevailing tendency only in a very complicated and approximate manner, as a never ascertainable average of ceaseless fluctuations.’ (*Capital*, III, p. 161).

The ‘law of value’ is often posed as a relation between value and price, but this is because price is the form through which the objectification of abstract labour is achieved. Establishing this result is the first step of the phase of syntheses.

The problem is to explain the process by which abstract labour, an aspect of labour, becomes ‘objectified’ as the value of a commodity. Marx’s argument is that this requires the abstract labour embodied in a commodity (e.g. linen) to be expressed ‘objectively’, as a ‘thing which is materially different from the linen itself and yet common to the linen and all other commodities’ (*Capital*, I, p. 142). This can be done if one commodity functions as the bearer of value (or value-form), and reflects the value of the commodities exchanged with it. Section III of chapter 1, *Capital*, I, is devoted to exploring the implications of this ‘determination of reflection’ (cf. *Capital*, I, p. 149). The simplest implication is that,

‘... the natural form of commodity B becomes the value form of commodity A, in other words the physical body of commodity B becomes a mirror for the value of commodity A’. (*Capital*, I, p. 144).

Marx calls the commodity which serves as the bearer of value the equivalent form; and the commodity whose value is being reflected, the relative form. The next implication that Marx draws, is that in order to function as a bearer or representation of value, the equivalent form must be ‘directly exchangeable’ (*Capital*, I, p. 147). That is, its exchangeability (the possibility of exchanging it) must not depend upon its own use-value, nor on the character of the actual, individual labour embodied in it. In this it must differ from all other commodities, where, as we have already seen, their use-value and the private characteristics of their owners play a role in their exchangeability. In the case of the equivalent form, its exchangeability must instead depend upon its *social* position as equivalent. But this social position ‘can only arise as the joint contribution of the whole world of commodities’ (*Capital*, I, p. 159). That is, no individual commodity owner can decide to make his commodity an equivalent form: this can only come about as the byproduct of the actions of each commodity owner trying to exchange his own commodity for others he would rather have (see also *Capital*, I, p. 180).

Direct exchangeability will remain in only an embryonic form unless the equivalent form is a *universal* equivalent, in which *all* other commodities have their abstract labour objectified, their value reflected. The physical form of such a universal equivalent ‘counts as the visible incarnation, the social chrysalis state, of all human labour’ (*Capital*, I, p. 159). The full establishment of direct exchangeability requires a further condition that there should be a *unique*

universal equivalent, a commodity whose 'specific social function, and consequently its social monopoly (is) to play the part of universal equivalent in the world of commodities' (*Capital*, I, p. 162).

And at this point we can make an empirical check on the line of argument. The argument has implied that in capitalist societies there should be a tendency for one commodity to be excluded from the ranks of all other commodities, to have conferred upon it the social monopoly of direct exchangeability with all other commodities. Can such a commodity be found? If not, then something must be wrong with Marx's argument. On inspection we do find such a commodity: gold-money. The implication is not, of course that the universal equivalent must *always* be gold money. As we have already seen, Marx goes on to note that gold, for some purposes, can be replaced as universal equivalent by symbols of itself, by paper money. The implication is rather, that gold-money as the universal equivalent is a necessary precursor to paper money. At the root of the argument here is Marx's rejection of the view that the universal equivalent can be established 'by a convention', i.e. by a conscious and simultaneous decision of all commodity owners to invest some material form with the properties of universal equivalent. Rather he takes the view that 'Money necessarily crystallises out of the process of exchange' (*Capital*, I, p. 181), and that it certainly cannot be treated 'as if' established 'by a convention'.

The fact that we do find a commodity with the social monopoly of direct exchangeability with all other commodities does not prove the correctness of Marx's argument that such a commodity is the visible expression of objectified abstract labour. Rather it has the negative effect of not disproving it, of not halting the line of argument, but allowing it to proceed. This is all an empirical check on the argument can ever do. The question of when we have sufficiently grasped the real relations under investigation, when we know enough about them to proceed to practical action, is not one that can ever be finally decided by an empirical test. It must always be a matter of judgement.

There is a problem with Marx's exposition of the role of gold-money as universal equivalent, 'direct incarnation of all human labour', in that he does not distinguish sufficiently clearly between money as a medium of exchange and the money form of value (money as universal equivalent). Money in itself is not specific to the capitalist mode of production (see Brenner, 1977), and the fact that money is functioning as a medium of exchange does not mean that it is functioning as an expression of value, the 'direct incarnation of all human labour'. This distinction is ellided in many of the statements made in Chapter 2, 'The Process of Exchange', creating the impression that where there is money, there is also value. Money as medium of exchange is certainly a necessary precursor to the money form of value, but in Chapter 2 Marx overstresses the continuity at the expense of the difference. To recapitulate the argument: beginning from an economy in which the capitalist mode of production is dominant and in which there are capitalist relations of exchange (i.e. the general exchangeability of products of labour through a process of sale and purchase), we arrived through analysis at the conclusion that this presupposes value (i.e. the objectification of abstract labour); we then considered the conditions for the objectification of abstract labour and concluded that this implies a universal equivalent that reflects and is the

expression of value. Gold-money in capitalist economies does have the characteristics necessary for being a universal equivalent. But being a universal equivalent is itself predicated upon the social relations of the capitalist mode of production.

Marx's line of argument is not formalist but begins from real premises in the specific social relations of capitalism; and it does survive empirical checks, in that a social phenomenon can be found corresponding to what is posited by the argument of the phase of synthesis. Nevertheless, it leads us to an extraordinary conclusion, the extraordinariness of which Marx notes quite explicitly in the last section of Chapter 1, *Capital*, I:

'If I state that work or boots stand in a relation to linen because the latter is the universal incarnation of abstract human labour, the absurdity of the statement is self evident. Nevertheless, when the producers of coats and boots bring these commodities into a relation with linen, or with gold or silver (and this makes no difference here), as the universal equivalent, the relation between their own private labour and the collective labour of society appears to them in exactly this absurd form'. (*Capital*, I, p. 169).

The point is made even more vividly in a passage included in the First Edition of *Capital*, but not in subsequent editions, and recently brought to our attention by Arthur, 1978. The objectification of abstract labour through its incarnation in the universal equivalent

'... is as if alongside and external to lions, tigers, rabbits and all other actual animals, which form grouped together the various kinds, species, sub-species, families etc. of the animal kingdom, there existed also in addition the *animal*, the individual incarnation of the entire animal kingdom.' (quoted by Arthur, 1978, p. 98).

The objectification of abstract labour entails its dependent expression in a determinate form, the form of the money commodity. But does not this conclusion, that objectified abstract labour (value) has an independent expression, undermine Marx's claim that value is not conceived as an absolute entity? Here it is helpful to bear in mind another little-noticed distinction drawn by Marx, that between 'internal independence' and 'external independence' (cf. *Capital*, I, p. 209). Value lacks the 'internal independence' necessary for it to be an entity because it is always one side of a unity of value and use-value, i.e. the commodity. But the value side of the commodity can be given 'external independence' if the commodity is bought into a relation with another commodity which serves only to reflect value. This produces the illusory appearance that value in its money form *is* an independent entity; but the autonomy it confers on value is only relative. It is this externally independent expression, in objectified form, of a one-sided abstraction, the abstract aspect of labour, which is the fetishism of commodities. Unlike the fetishism of 'the misty realm of religion' it is not an ideological form, a product of our way of looking at things; but a product of the particular form of the determination of labour, of particular relations of production.

In the form of the universal equivalent, abstract labour is not only objectified: it is established as the dominant aspect of labour. The concrete aspect serves only to express the abstract aspect of human labour; for the usefulness of the labour embodied in the universal equivalent consists in 'making a physical object which we at once recognise as value' (*Capital*, I, p. 150). The private aspect of the labour embodied in it serves only to express the social aspect: individual producers cannot decide to produce the universal equivalent until it has already been established as universal equivalent by a 'blind' social process. The social aspect of the labour embodied in it, its social necessity, consists in producing a commodity which functions simply as the incarnation of abstract labour. This does not mean that the private, concrete and social aspects of labour are being extinguished, obliterated; that the labour embodied in the universal equivalent is simply abstract labour. What it means is that other aspects of labour are subsumed as expressions of abstract labour. The form of the universal equivalent reflects only abstract labour.

The argument of *Capital*, I, goes on to show the dominance of the universal equivalent, the money form of value, over other commodities, and how this domination is expressed in the self-expansion of the money form of value i.e. in the capital form of value. Further it shows that the domination of the capital form of value is not confined to labour 'fixed' in products, it extends to the immediate process of production itself, and to the reproduction of that process. The real subsumption of labour as a form of capital (see *Results of Immediate Process of Production*, p. 1019-1038) is a developed form of the real subsumption of the other aspects of labour as expressions of abstract labour in the universal equivalent, the money form of value.

In discussing the domination of objectified abstract aspect of labour, through the capital form of value, Marx refers to value as 'the subject of a process', valorising itself 'independently' (*Capital*, I, p. 255). Here again it seems as if value is being posed as an absolutely independent entity. It is indeed these references which form the point of departure of the capital-logic approach. It does seem as if here is a case where Marx is mistaking 'the movement of the categories' for the 'real act of production'. But we need to recall the distinction, made earlier, between external and internal independence; and the fact that these references occur in a discussion of the circulation of capital, i.e. of the form of appearance of valorisation in money terms. At this level it certainly appears that value is 'the subject of a process, endowed with a life of its own. But there is more to it than immediately meets the eye; which Marx signals in these ironic words:

'By virtue of being value, it has acquired the occult ability to add value to itself. It brings forth living offspring, or at least lays golden eggs.' (*Capital*, I, p. 255.)

We are reminded of the ironical references to the mysterious abilities of the commodity, its 'metaphysical subtleties and theological niceties', at the beginning of the section on the fetishism of commodities (*Capital*, I, p. 162). In my view, value appearing as the subject of a process', valorising itself 'independently' is posed by Marx as one more aspect of the fact that,

‘the commodity reflects the social characteristics of men’s own labour as objective characteristics of the products of labour themselves, as the socio-natural properties of these things.’ (*Capital*, I, p. 165.)

The ‘determination of reflection’ whereby the abstract labour of one commodity is objectified by its expression in the money form of value is what underlies Marx’s statements about the relation of value to price (exchange-value expressed in the money form). It should be clear from earlier sections of this paper that the references in the first two sections of Chapter 1, Volume I of *Capital* (i.e. the phase of analysis) to the determination of the magnitude of value by labour-time do not constitute an argument about the relation of value and price, but about the relation of value and its internal measure. It is in Sections 3 and 4 of Chapter 1 that we find the first references to value as a regulator of exchange ratios, most notably:

‘It becomes plain that it is not the exchange of commodities which regulates the magnitude of their value, but rather the reverse, the magnitude of the value of commodities which regulates the proportion in which they exchange.’ (*Capital*, I, p. 156.)

and,

‘... in the midst of the accidental and ever-fluctuating exchange relations between the products, the labour-time socially necessary to produce them asserts itself as a regulative law of nature’. (*Capital*, I, p. 156.)

It will be apparent from my earlier argument that it would be a mistake to interpret ‘regulate’ in terms of a relation between a dependent and an independent variable. Rather we should understand it in terms of the way in which the inner character of some form regulates its representation at the level of appearance, its reflection. Thus the molecular structure of a chemical substance regulates the representation of the substance in the form of a crystal, and the cell-structure of a living organism regulates the form of the organism’s body.

We should note that in the passages quoted above, Marx confines himself to saying that values ‘regulate’ exchange ratios. He says nothing specific about the form of this regulation; in particular, he does not commit himself to the view that the exchange ratios expressed in the equivalent form, directly represent the magnitude of values (i.e. that prices are equal to values). There is a passage in the discussion of the General Form of Value which is rather more ambiguous:

‘In this form, when they are all counted as comparable with linen, all commodities appear not only as qualitatively equal, as values in general, but also as values of quantitatively comparable magnitude. Because the magnitudes of their values are expressed in one and the same material, the linen, these magnitudes are now reflected in each other. For instance, 10 lb of tea = 20 yards of linen, and 40 lb of coffee = 20 yards of linen. Therefore, 10 lb of tea = 40 lb of coffee, in other words, 1 lb of coffee contains only a

quarter as much of the substance of value, that is, labour, as 1 lb of tea.' (*Capital*, I, p. 159.)

The last sentence certainly suggests an equality of magnitude of value and price. (Marx argues that here linen is playing the role of money). But I think we have to pay particular attention to the unstressed reference to 'appearance'. Marx in this stage of the argument is returning from consideration of the inner substance of the relations between commodities to their appearance. The point is that on the basis of the investigation so far, it appears that commodities exchange in ratios which reflect directly the magnitude of their values, and there is as yet no basis for challenging that appearance. In writing *Capital*, I, Marx was however well aware that at a later stage of the investigation conclusions based on this appearance would have to be challenged. He signals this in his footnote reference to 'the insufficiency of Ricardo's analysis of the magnitude of value' which 'will appear from the third and fourth books of this work' (*Capital*, I, p. 173).

Such an awareness is not to be found in *Critique of Political Economy* published in 1859, eight years before *Capital*, I, and which does not contain the same careful distinction between substance (or inner structure) and appearance, failing, for instance, to make a systematic distinction between value and exchange-value.

In *Capital*, I, Marx takes no steps to dispel the appearance that prices directly represent values as magnitudes. But this is not quite the same as making the assumption that prices are approximately equal to values, and subsequently relaxing it. Rather, in *Capital*, I, the argument abstracts from consideration of the social relations that imply that prices cannot directly represent the magnitude of values. This is often explained in terms of *Capital*, I, dealing with 'capital in general' and *Capital*, III, where the form of representation of the magnitude of value is explicitly considered, dealing with 'many capitals' (cf. Rosdolsky, 1977, p. 41-50). The trouble with this explanation is that it often leads to confusion about competition: to the view, for instance, that *Capital*, I, abstracts from competition. This is clearly not the case: competition is an essential feature of capitalism; capital can only exist in the form of many capitals. It is not competition that Marx abstracts from in Volume I, but the question of the distribution of value between capitals.

More helpful is the distinction that Marx himself makes at the beginning of *Results of the Immediate Process of Production*, a distinction between considering the commodity simply as the product of labour, and considering it as the product of capital (i.e. of self-valorising labour). Marx indicates that his procedure in Volume I is to begin from the commodity viewed simply as the product of labour, because this is its immediate form of appearance. The investigations of Volume I show precisely the superficiality of this immediate appearance of the commodity, revealing that the commodity, as the 'immediate result of the capitalist process of production', embodies not only value, but also surplus value; is represented not only in the price but in the profit form.

This forces a reconsideration of the representation of magnitudes of value by prices, which is undertaken in *Capital*, III, where the concept of price of production is elaborated. A discussion of the adequacy of the conclusions reached is beyond

the scope of this paper. Here we need merely note that the analysis of the relation between prices and values presented in Volume III does not rest on different premises from that offered in Volume I, but is a further development of the same analysis, attempting to encompass features of the capitalist mode of production from which Volume I abstracts.

Marx not only claims that values regulate, in the sense explained, prices. He also points to the possibility of breakdown of this regulation. In order for the abstract aspect of the labour embodied in a commodity to be objectified, the commodity must have a price. But this price

‘may express both the magnitude of value of the commodity and the greater or lesser quantity of money for which it can be sold under given circumstances. The possibility, therefore, of a quantitative incongruity between price and magnitude of value, i.e. the possibility that the price may diverge from the magnitude of value, is inherent in the price-form itself.’ (*Capital*, I, p. 196).

Money as universal equivalent is a necessary condition for the objectification of abstract labour, but not a sufficient condition for its objectification in a quantitatively determinate, socially necessary form. The realisation of the magnitude of value in the price form is precarious because of the relative autonomy of the circulation of money from the production of commodities. In the relation between the two processes,

‘commodities as use-values confront money as exchange values. On the other hand, both sides of this opposition are commodities, hence themselves unities of use-value and value. But this unity of differences is expressed at two opposite poles, and at each pole in an opposite way.’ (*Capital*, I, p. 199).

There is no necessary relation between relinquishing one’s own use-value in the commodity form and acquiring someone else’s use-value; for one can choose to hold money, a commodity which, unlike any other, is normally exchangeable at any time for any commodity. But the magnitude of value of money is necessarily indeterminate, for there is no universal equivalent uniquely reflecting its value, but a whole series of reflections in the quantities of all other commodities that a given amount of money will purchase (see *Capital*, I, p. 147). The timing and sequence of purchases and sales of different goods can thus have an independent effect upon prices, and at any moment in time there is no necessary identity of aggregate sales and aggregate purchases.

But if the assertion of the relative autonomy of the circulation of money from the production of commodities

‘proceeds to a certain critical point, their unity violently makes itself felt by producing—a crisis. There is an antithesis, immanent in the commodity, between use-value and value, between private labour, which must simultaneously manifest itself as directly social labour, and a particular concrete kind of labour, which simultaneously counts as merely abstract

universal labour, between the conversion of things into persons and the conversion of persons into things; the antithetical phases of the metamorphosis of the commodity are the developed forms of motion of this immanent contradiction. These forms therefore imply the possibility of crises, though no more than the possibility. For the development of this possibility into a reality a whole series of conditions is required, which do not yet exist from the standpoint of the simple circulation of commodities.' (*Capital*, I, p. 209.)

Our observations of capitalist economies tell us that not only is this possibility of crisis realised, it is also — temporarily — resolved, in the sense that restructuring takes place and there is recovery from the crisis. Thus there are clearly limits to the extent to which the circulation of money departs from the production of commodities; or, in other words, to the extent to which price departs from the magnitude of value. What sets these limits can only be established after a good deal more investigation. Given the categories of analysis established so far, all that we can say is that these limits must take the form of some pressure on commodity producers to represent labour-time expended in production in money terms, to account in money terms for every moment.²¹ To establish how such pressure is brought to bear requires an analysis of capitalist production. It is quite illegitimate to argue that the pressure must come from capital's 'need' to reproduce itself. Here I am in agreement with Cutler et al. who reject such reasoning as functionalist and economistic (op. cit. 1977, p. 71). But I would also stress that nowhere does Marx present an argument of this type.

It is true that the investigations of *Capital*, I, proceed for the most part on the assumption of equilibrium — the reflection of the magnitude of value in the price of commodities (exchange of equivalents) — rather than on the assumption of disequilibrium — the failure of this reflection to be quantitatively determinate (exchange of non-equivalents). But this is because the assertion of the relative autonomy of the circulation of money from the production of commodities shows up in terms of the distribution of profit between capitals (see *Capital*, I, p. 262-6 for a preliminary indication of this), precisely the question from which Marx abstracts in Volume I. The major concern of Volume I is to establish how it is that labour comes to count 'simply as a value-creating substance', how this entails the subsumption of labour as a form of capital. In doing this Marx follows the procedure of first examining the equilibrium aspect of the process he is considering, its 'law', but he also indicates that this is merely one side of the process, and that the forms of the process of the determination of labour in capitalist economies imply disequilibrium and crisis, just as much as equilibrium and 'law'

4. The political implications of Marx's value analysis

We began by rejecting the view that Marx's value analysis constitutes a proof of exploitation, but argued that such a rejection did not necessarily lead to a de-politicisation of that analysis. We must now briefly return to the question of politics; briefly, because any attempt to treat this question in depth would require at least another essay. In my view the political merit of Marx's theory of value, the

reason why it is helpful for socialists, is that it gives us a tool for analysing how capitalist exploitation works, and changes and develops; for understanding capitalist exploitation in process. And as such, it gives us a way of exploring where there might be openings for a materialist political practice, a practice which in Colletti's words 'subverts and subordinates to itself the conditions from which it stems' (Colletti, 1976, p. 69).

In support of this view I will make just three short points: firstly, the theory of value enables us to analyse capitalist exploitation in a way that overcomes the fragmentation of the experience of that exploitation; secondly, it enables us to grasp capitalist exploitation as a contradictory, crisis-ridden process, subject to continual change; thirdly, it builds into our understanding of how the process of exploitation works, the possibility of action to end it.

The first point stems from the premise that those who experience capitalist exploitation do not need a theory to tell that something is wrong. The problem is that the experience of capitalist exploitation is fragmentary and disconnected, so that it is difficult to tell exactly what is wrong, and what can be done to change it. In particular, there is a problem of a bifurcation of money relations and labour process relations, so that exploitation appears to take two separate forms: 'unfair' money wages or prices, and/or arduous work with long hours and poor conditions. The politics that tend to arise spontaneously from this fragmented experience is in turn bifurcated: it is a politics of circulation and/or a politics of production. By a politics of circulation I mean a politics that concentrates on trying to change money relations in a way thought to be advantageous to the working class. Examples are struggles to raise money wages, control money prices; control and remove the malign influence of the operation of the financial system, direct flows of investment funds; make transfers of money income through a welfare state, etc. By a politics of production, I mean a politics that concentrates on trying to improve conditions of production; shorten the working day, organise worker resistance on the shop-floor; build up workers' co-operatives, produce an 'alternative plan' (cf. Lucas Aerospace Workers Plan), etc. Both these kinds of politics have been pursued by the labour movement in both Marx's day and ours. The point is not that these kinds of politics are in themselves wrong, but that they have been pursued in isolation from one another (even when pursued at the same time by the same organisation), as if there were two separate arenas of struggle, circulation and production; money relations and labour process relations.

What Marx's theory of value does is provide a basis for showing the link between money relations and labour process relations in the process of exploitation. The process of exploitation is actually a unity; and the money relations and labour process relations which are experienced as two discretely distinct kinds of relation, are in fact onesided reflections of particular aspects of this unity. Neither money relations nor labour process relations in themselves constitute capitalist exploitation; and neither one can be changed very much without accompanying changes in the other. (For examples of Marx's argument on this point, see 'Wages, Price and Profit' in Marx-Engels, *Selected Works*, Vol. 2; and *Critique of Political Economy*, p. 83-6). Marx's theory of value is able to show this unity of money and labour process because it does not pose production and

circulation as two separate, discretely distinct spheres, does not pose value and price as discretely distinct variables.

The importance of the second point, that capitalist exploitation is analysed as a contradictory process, not a static 'fact', is that it enables us to grasp both how exploitation survives, despite the many changes in its form, changes which the politics of circulation and the politics of production have helped to bring about; and also how it has an inbuilt tendency to disintegrate in the form in which it exists at any moment, and to be constituted in another form. The key to understanding this contradictory process is that although money relations and labour process relations are aspects of the same unity, internally dependent on other, they are nevertheless relatively autonomous from one another. In that relative autonomy lie the seeds of potential crisis. This is important politically, not because such a crisis in itself constitutes the breakdown of capitalism — it clearly does not — but because it indicates a potential space for political action; for the self conscious collective regulation of the processes of production and distribution, rather than their regulation through 'blind' market forces.

But Marx's theory of value does not simply analyse the determination of labour in capitalist society in a way that indicates potential space for political action. Its third virtue is that it also builds into the analysis, not only potential space for political action, but the possibility of taking political action. Now the possibility of taking political action against the capitalist form of the determination of labour, against capitalist exploitation, is taken for granted by all socialists. But the strange thing is that this possibility has all too often not been built into the concepts with which socialists have analysed the process of exploitation. Instead exploitation has been analysed as a closed system, and political action against it — class struggle — has been introduced, to impinge upon this system, from the outside. It may impinge as 'the motor of history' pushing the system on over time, at a slower or more rapid pace; or as the independent variable determining the level of wages, or the length of the working day, or the particular form or tempo of the restructuring of capital after crisis. Whatever formula is used, the same drawback is there: class struggle only enters the analysis as a *deus ex machina*. This leaves us unable to think of the transition from capitalism to socialism as an historical process, a metamorphosis consciously brought about by collective action; rather than as a leap between two fixed, pre-given structures, or as a simple extension of socialist forms considered as already co-existing with capitalist ones (for a longer discussion of this point, see Elson, 1979).

Edward Thompson has recently presented an impassioned critique of Althusserian Marxism on this very point (Thompson, 1978), and it seems to me that his critique is equally applicable to the model-building of most Marxist economics; and to the relentlessly unfolding dialectic of the capital-logic school. All of them analyse capitalist exploitation without using concepts which contain *within them* the recognition of the possibility of conscious collective action against that exploitation. There is a bifurcation between their analysis of what capitalist exploitation is, and their analysis of the politics of ending it. If the 'structure' really is 'in dominance'; if the independent variables are simply 'given', and the dependent variables uniquely determined by them; if capital really is 'dominant subject'; then we are left without a material basis for political action.

In my view, and here I differ from Thompson, the same bifurcation does not occur in Marx's *Capital*. This offers us neither a structure in dominance, nor a model of political economy, nor a self-developing, all-enveloping entity. Rather it analyses, for societies in which the capitalist mode of production prevails, the determination of labour as an historical process of forming what is intrinsically unformed; arguing that what is specific to capitalism is the domination of one aspect of labour, abstract labour, objectified as value. On this basis it is possible to understand why capital can appear to be the dominant subject, and individuals simply bearers of capitalist relations of production; but it is also possible to establish why this is only half the truth. For Marx's analysis also recognises the *limits* to the tendency to reduce individuals to bearers of value-forms. It does this by incorporating into the analysis the subjective, conscious, particular aspects of labour in the concepts of private and concrete labour; and the collective aspect of labour in the concept of social labour. The domination of the abstract aspect of labour, in the forms of value, is analysed, not in terms of the obliteration of other aspects of labour, but in terms of the subsumption of these other aspects to the abstract aspect. That subsumption is understood in terms of the mediation of the other aspects by the abstract aspect, the translation of the other aspects of labour into money form. But the subjective, conscious and collective aspects of labour are accorded, in the analysis, a relative autonomy. In this way the argument of *Capital* does incorporate a material basis for political action. Subjective, conscious and collective aspects of human activity are accorded recognition. The political problem is to bring together these private, concrete and social aspects of labour without the mediation of the value forms, so as to create particular, conscious collective activity directed against exploitation. Marx's theory of value has, built into it, this possibility.

Its realisation, in my view, would be helped if socialists were to use the tools which Marx's theory of value provides to analyse the particular forms of determination of labour which prevail in capitalist countries today. This essay is offered as a contribution to the restoration to working condition of those tools.

Notes

I should like to thank the many comrades in Brighton and Manchester with whom I have discussed value theory over the last few years; and in particular Ian Steedman for reading and commenting on the manuscript of this essay. The responsibility for its idiosyncracies remains mine alone. I would welcome comments from readers via CSE Books

1. Hereafter referred to as *Critique of Political Economy*.
2. As Steedman, 1976, has pointed out, Morishima's 'Generalised Fundamental Marxian Theorem' in fact incorporates a concept of value rather different from that of Marx.
3. A notable exception is the sexual division of labour. The impression that this is determined by 'natural' biological factors is not completely undermined.
4. In the technical analysis of choice theory, an individual chooses from within the choice set, but does not choose the choice set itself. The question of who chooses the choice set, or more strictly speaking, of how the choice set comes to be delineated, is a serious problem generally assumed away by exponents of choice-logic.
5. As Georgescu-Roegen puts it, '*discrete* distinction constitutes the very essence of logic.' (Op. cit., 1966, p. 21). This interesting writer, who may be unfamiliar to CSE members, is an unconventional economist, who is well acquainted with the works of Hegel and Marx; and who criticises the arithmomorphism of neo-classical economics from the stronghold of a wide knowledge of mathematics and philosophy.

6. 'Value, therefore, does not have its description branded on its forehead; rather it transforms every product into a social hieroglyphic.' (*Capital*, I, p. 167).
7. John Gray (1799-1850) was an economic pamphleteer and utopian socialist. His scheme has many similarities to the one later put forward by Proudhon.
8. Boisguillebert (1646-1714) was a Frenchman, one of the first writers in the tradition of classical political economy.
9. By the 'capital-logic' approach, I mean the approach which one-sidedly emphasises capital (or value in process, self-expanding value) as the 'dominant subject' (cf. *Capital*, I, p. 255). Rosdolsky, 1977, is a prominent example, and the point of departure for much other 'capital-logic' writing.
10. Although I agree with Hussain and Itoh that abstract labour is a concept pertinent to all epochs, I differ in my interpretation of what it means.
11. But not from 'simple commodity production'. As may already be apparent from my remarks on Marx's rejection of the sequential method of investigation I do not think that Marx followed Adam Smith and postulated some pre-capitalist mode of simple commodity production as the starting point for his theory of value. For a detailed treatment of this point, see Banaji, this volume, p. 14-45.
12. See Kay, this volume, for a discussion of Bohm-Bawerk's critique of Marx.
13. Cutler et al., 1977, are wrong to argue (p. 14) that marginal utility theories of commodity exchange do not explain exchange in terms of equivalence. It is perfectly true that the act of exchange is explained in terms of a *difference* in *total* utility, each commodity owner would get greater utility from some different combination of goods than the one he possesses, and hence enters into exchange. But the quantities exchanged and hence the rate of exchange, are explained precisely in terms of *equivalence of marginal* utility. (See for instance, Dobb, 1973, p. 183-4; Georgescu-Roegen, 1966, p. 191.)
14. Georgescu-Roegen, 1966, Chapter 3, has a useful discussion of the fundamental issue at stake here: that of the commensurability of commodities as use-values. Unfortunately, most of his argument is probably inaccessible to the non-economist.
15. Such a reduction can be avoided by postulating a lexicographic preference ordering of commodities (i.e. an ordering made on the same basis as the ordering of words in a dictionary). This gives an order of priority in which wants are to be satisfied, and entails comparability, but not commensurability, of commodities as use-values. This postulate is not the one normally adopted in proving the existence theorems of neo-classical general equilibrium theory, but I am assured that these theorems could be proved, even for lexicographic preference orderings, and hence do not depend on the reducibility of wants. I find it harder to see how the process of formation of exchange values can be explained on this basis, where the process of comparing quantities of commodities in terms of quantities of a common satisfaction is ruled out. The postulate of lexicographic preference ordering seems to me much more suited to a different task: that of explaining the choices of an individual faced with a given set of prices.
16. This 'givenness' of prices is recognised in the general equilibrium theorems of neo-classical economics. But the question of *how* the prices are given seems no longer to be raised. An earlier generation of neo-classical economists did try to tackle this problem. For instance Walras offered an explanation in terms of *cries au hasard*, and Edgeworth in terms of 'recontracting'. (See Schumpeter, 1963, p. 1002). Both of these are subjective explanations, in which prices are determined directly by producers, and not 'behind their backs'.
17. Cf. 'the "substance of value" — a phrase that has puzzled many modern readers', Dobb, 1971, p. 10.
18. Marx uses the term 'substance' in a chemical context in his example of the relation between butyric acid and propyl formate. (*Capital*, I, p. 141.) Both are forms of the same underlying chemical substance, $C_4H_8O_2$. They are equivalent substances in their chemical composition as $C_4H_8O_2$ but different arrangements of the atoms in the molecule give them different physical properties; but that does not mean that $C_4H_8O_2$ is discretely distinct from either butyric acid or propyl formate — it is their essence, as opposed to their form of appearance.
19. At least I have not yet come across any explicit discussion by Marx of what he means by 'substance'; nor have I found any helpful secondary literature on this point. Perhaps any reader who has found such material would let me know.
20. Mill and Ricardo did, of course, recognise that prices in the market fluctuate considerably. But this was regarded as surface 'noise' which masked rather than manifested the underlying relations. (See Banaji, this volume, p. 14-45 for a further discussion of the relation between underlying relations and appearances in classical political economy).
21. This does not mean that every hour of labour is objectified as the same quantity of value and represented by the same quantity of money. Hours of different kinds of labour may be objectified as different quantities of value, and represented by different quantities of money. Marx deals with this question in terms of the relation between skilled and unskilled labour. It is beyond the scope of this paper to discuss the adequacy

of Marx's treatment of this point, but we may note that the literature commenting specifically upon it is as full of misconceptions as the more general writings on Marx's theory of value

Nor does this mean that the purpose of value theory is to generate pricing rules by which the representation of labour-time in money must be governed to secure the reproduction of a particular pattern of labour-time expenditure. The fact that no consistent rules can be generated, in the case of joint production to link the labour-time socially necessary for the production of an individual commodity and the price of that commodity does not, therefore, invalidate Marx's value theory (for an amplification of this point see Himmelweit and Mohun, 1978, Sections 4 and 5).

Rather, Marx's value theory provides us with a tool for analysing why the elaboration of pricing rules becomes necessary in the development of capitalism, giving rise to the whole modern panoply of accountants, capital budgeting experts and value analysts (sic), and also to the concern of modern economists with finding the 'optimum' pricing rules. It also provides us with the tools to investigate a phenomenon with which Marx was little concerned, perhaps because in his day it was of little practical relevance, the *contradictions* inherent in such pricing rules, of which the contradictions of attempts to account for the labour-time spent in joint production are a good example.

Bibliography

- Althusser, L (1975), *Reading Capital*, New Left Books, London.
- Althusser, L (1977), *Lenin and Philosophy and Other Essays*, New Left Books, London.
- Armstrong, P, Glyn, A and Harrison, J (1978), 'In Defence of Value', *Capital and Class*, No. 5.
- Arthur, C J (1976), 'The Concept of Abstract Labour', *CSE Bulletin*, No. 14.
- Arthur, C J (1978), 'Labour: Marx's Concrete Universal', *Inquiry*, No. 2.
- Arthur, C J (1979), 'Dialectic of the Value-Form', in Elson, D (ed.), *Value: the representation of labour in capitalist economy*, CSE Books, London.
- Aumeeruddy, A and Tortajada, R (1979), 'Reading Marx on Value: A Note on the Basic Texts' in Elson, D (ed.) op. cit.
- Banaji, J (1976), 'Marx, Ricardo and the Theory of the Value-Form. Prelude to a Critique of Positive Marxism', *Marxistisk Antropologi*, 2, 2-3.
- Banaji, J (1977), 'Modes of Production in a Materialist Conception of History', *Capital & Class*, No. 3.
- Banaji, J (1979), 'From the Commodity to Capital: Hegel's Dialectic in Marx's *Capital*' in Elson, D (ed.), op. cit.
- Braverman, H (1974), *Labour and Monopoly Capital*, Monthly Review Press, New York and London.
- Brenner, R (1977), 'The Origins of Capitalist Development — A Critique of Neo-Smithian Marxism', *New Left Review*, No. 104.
- Colletti, L (1976), *From Rousseau to Lenin*, New Left Books, London.
- Cutler, A, Hindess, B, Hirst, P and Hussain, A (1977), *Marx's Capital and Capitalism Today*, Vol. I, Routledge and Kegan Paul, London.
- Dobb, M (1971), Introduction to Marx's *A Contribution to the Critique of Political Economy*, Lawrence and Wishart, London.
- Dobb, M (1973), *Theories of Value and Distribution since Adam Smith*, Cambridge University Press, Cambridge.
- Elson, D (1979), 'Which Way "Out of the Ghetto"?', *Capital & Class*, No. 9.
- Engels, F (1962), *Anti-Duhring*, Lawrence and Wishart, London.
- Fine, B and Harris, L (1976), 'Controversial Issues in Marxist Economic Theory' in Miliband, R and Saville, J (eds.), *Socialist Register*, Merlin Press, London.
- Georgescu-Roegen, N (1966), *Analytical Economics*, Harvard University Press, Cambridge, Massachusetts.
- Himmelweit, S and Mohun, S (1978), 'The Anomalies of Capital', *Capital & Class* No. 6.
- Hodgson, G (1976), 'Exploitation and Embodied Labour Time', *CSE Bulletin*, No. 13.

- Hussain, A (1979), 'Misreading Marx's Theory of Value: Marx's Marginal Notes on Wagner', in Elson, D (ed.), op. cit.
- Itoh, M (1976), 'A Study of Marx's Theory of Value', *Science and Society*, Fall.
- Kay, G (1976), 'A Note on Abstract Labour', *CSE Bulletin*, No. 13.
- Kay, G (1979), 'Why Labour is the starting point of Capital', in Elson, D (ed.), op. cit.
- Marx, K (1969-72), *Theories of Surplus Value*, Parts One, Two and Three, Lawrence and Wishart, London.
- Marx, K (1971), *A Contribution to the Critique of Political Economy*, Lawrence and Wishart, London.
- Marx, K (1972), Marginal Notes on Adolph Wagner's 'Lehrbuch der politischen Okonomie', translated in *Theoretical Practice*, Issue 5.
- Marx, K (1973), *Grundrisse*, translated by M Nicolaus, Penguin Books, London.
- Marx, K (1973), *1857 Introduction*, included in *Grundrisse*, pp. 83-111, Penguin Books, London.
- Marx, K (1974), *Capital*, translated by Moore and Aveling in three volumes, Lawrence and Wishart, London.
- Marx, K (1975), *Early Writings*, Penguin Books, London.
- Marx, K (1976), *Capital*, Vol. I, translated by Ben Fowkes, Penguin Books, London.
- Marx, K (1976), *Results of the Immediate Process of Production*, Appendix to *Capital*, I, Penguin Books, London.
- Marx, K and Engels, F (n.d.), *Selected Correspondence*, Foreign Languages Publishing House, Moscow.
- Marx, K and Engels, F (1973), *Selected Works*, Vols. II and III, Progress Publishers, Moscow.
- Marx, K and Engels, F (1974), *The German Ideology*, Lawrence and Wishart, London.
- Meek, R L (1967), *Economics and Ideology and other Essays*, Chapman and Hall, London.
- Meek, R L (1977), *Smith, Marx and After*, Chapman and Hall, London.
- Moore, S (1971), 'Marx and the Origins of Dialectical Materialism', *Inquiry*, Vol. 14.
- Morishima, M (1973), *Marx's Economics*, Cambridge University Press, Cambridge.
- Ohlin Wright, E (1979), 'The Value Controversy and Social Research', *New Left Review*, No. 116.
- Ollman, B (1976), *Alienation* (Second Edition), Cambridge University Press, Cambridge.
- Pilling, G (1972), 'The Law of Value in Ricardo and Marx', *Economy and Society*, Vol I, No. 3.
- Rosdolsky, R (1977), *The Making of Marx's Capital*, Pluto Press, London.
- Rowthorn, R (1974), 'Neo-Classicism, Neo-Ricardianism and Marxism', *New Left Review*, No. 86.
- Ruben, D-H (1977), *Marxism and Materialism: A Study in Marxist Theory of Knowledge*, Harvester Press, Hassocks, Sussex.
- Rubin, II (1973), *Essays on Marx's Theory of Value*, Black Rose Books, Montreal.
- Schumpeter, J A (1963), *History of Economic Analysis*, Allen and Unwin, London.
- Steedman, I (1975a), 'Value, Price and Profit', *New Left Review*, No. 90.
- Steedman, I (1975b), 'Positive Profits with Negative Surplus Value', *Economic Journal*, March.
- Steedman, I, (1976), 'Positive Profits with Negative Surplus Value: A Reply', *Economic Journal*, September.
- Steedman, I (1977), *Marx after Sraffa*, New Left Books, London.
- Sweezy, P (1962), *The Theory of Capitalist Development*, Dennis Dobson Ltd, London.
- Sweezy, P (ed.) (1975), *Karl Marx and the Close of his System*, by E von Bohm-Bawerk and *Bohm-Bawerk's criticism of Marx*, by R Hilferding, Merlin Press, London.
- Thompson, E P (1978), *The Poverty of Theory*, Merlin Press, London.