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MARX AND MODERN VALUE THEORY

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CONTENTS

PAGE NOS

ABSTRACT

4

1. INTRODUCTION

5-22

1.1 INTRODUCTORY REMARKS

1.2 THE BIRTH OF ECONOMY

1.3 THE CRITIQUE OF POLITICAL ECONOMY

1.4 THE CONSTITUTING OF MARX'S VALUE THEORY

1.5 AIMS AND OBJECTIVES OF THIS WORK

1.6 OUTLINE AND SUMMARY OF SUBSEQUENT CHAPTERS

2. ON ANALYTICAL MARXISM AND THE ANALYTIC OF MARX

23-37

2.1 INTRODUCTION

2.2 ANALYTICAL MARXISM AND MODERNITY

2.3 THE EXTRA-ANALYTIC OF MARX

2.4 CONCLUDING REMARKS

3. FROM COMMODITY TO VALUE

38-52

3.1 INTRODUCTION

3.2 INTRINSIC VALUE

3.3 VALUE-MODERNITY AS SECOND NATURE

3.4 CONFIGURATION 1: C-M-C'

3.5 CONFIGURATION 2: M-C-M'

3.6 THE AUCTIONEER'S TALE RETOLD

3.7 CONCLUDING REMARKS

4. FROM VALUE TO MONEY: RESTATING THE QUALITY THEORY OF MONEY

53-77

4.1 INTRODUCTION

4.2 THE DIALECTIC OF THE COMMODITY-FORM

4.3 THE DOUBLE-COINCIDENCE DOGMA

4.4 THE QUALITY THEORY OF MONEY

4.5 CONCLUDING REMARKS

5. VALUE-SUBSTANCE AND THE SOCIAL

78-93

5.1 INTRODUCTION

5.2 THE MATHEMATICS OF THE SOCIAL

5.3 SOCIAL LABOUR AND THE COMMODITY ECONOMY

5.4 FREE TO CHOOSE	
5.5 CONCLUDING REMARKS	
6. ABSTRACT GENERAL LABOUR	94-113
6.1 INTRODUCTION	
6.2 THE MATHEMATICS OF ABSTRACT LABOUR	
6.3 ON ABSTRACT LABOUR AND LABOUR ABSTRACTION	
6.4 MEASURE FOR MEASURE	
6.5 CONCLUDING REMARKS	
7. RETHINKING THE MATERIALIST CONCEPTION: MARX'S MATERIALISM AS PHILOSOPHICAL ANTHROPOLOGY	114-128
7.1 INTRODUCTION	
7.2 FORCES AND RELATIONS	
7.3 TOWARDS A MATURE ANTHROPOLOGY	
7.4 THE ANTHROPOLOGICAL CRITIQUE	
7.5 CONCLUDING REMARKS	
8. VALUE AND FREEDOM	129-151
8.1 INTRODUCTION	
8.2 THOUGHT AS FREEDOM	
8.3 KANT, HEGEL AND THE IDEA OF FREEDOM	
8.4 MARX, FREEDOM AND THE SELF	
8.5 CONCLUDING REMARKS	
9. CONCLUSION: WORLD AND ENVIRONMENT	152-161
REFERENCES	162-180

ABSTRACT

Marx's value theory is standardly interpreted as a theory of price: qualitatively, as a kind of materialist sociology, concerned to show how money, markets and prices, in developed form, are the mere reflux of a particular mode of production, i.e. capitalism; and quantitatively, how the configuration of money prices may be related to the proportions of social labour-time expended in the various sectors of the economy.

According to this view, Marx's value-project is foundational for the understanding of the laws of motion of capitalist society, a motion which is thence shown to rely on the performance and appropriation of surplus labour under capitalist relations of production. As such, human activity is taken to serve an alien will and intelligence, namely, that of capital.

Apart from the last sentence (though, admittedly, this in itself is an important caveat) there is little in this standard reading of Marx's value-project to distinguish its orientation from that of the value-moderns. Moreover, in making the wage-contract and its performance the very site of the deformation of human purpose - in intimating that the imposition of a purpose alien to a properly human form of activity *comes with* the wage-contract - any distinction between Marx and value-modernity is all but obliterated. I will want to argue below that, to avoid doing violence to his value-project, Marx's labour theory of value needs to be interpreted in such a way that labour is explicitly understood as a systematically constituted form of self-limiting activity. My aim is to show the various forms that this 'activity of alienation' takes and how the key value-phenomena, *viz.*, organised markets, prices and money, are implicated in this process of self-limitation.

1. INTRODUCTION

1.1 Introductory Remarks

No other chapter of *Capital* seems to have given Marx nearly as much trouble as the first on value theory. Of course, beginnings are always difficult in science, or so Marx says (see Marx, 1974:18), but the start to *Capital*, or rather how that beginning would appear to the reader, somehow assumed a particular importance for Marx: "...the matter [of its presentation]", he writes to Engels, "...is too decisive for the whole book" (Marx, 1965:189). In any case it was only after four attempts and some fourteen years later, with the publication of the second German edition of the first volume of *Capital*, that Marx finally settled on a definitive version: "...one is struck at once", he writes in the afterword, "...by the clearer arrangement...and...greater scientific strictness" (Marx, 1974a:22; for a recent discussion of the relation between the later Marx-texts, see Anderson, 1992).

Few readers have been 'struck at once' by these things, however. Over four hundred papers have appeared subsequently in which the authors attempt to reinterpret, reformulate or reject outright Marx's arguments in the light of some perceived aporia or inconsistency (Freeman and Carchedi, 1996). It has to be said that the bulk of these contributions deal with what the authors would no doubt regard as purely technical concerns and attempt to offer no view, one way or the other, on the viability of Marx's project overall. Indeed, typically, no view is offered as to what that project might be. But technique is not always so cleanly isolated from purpose: as the occasional writer makes clear, the question of technical adequacy or otherwise is usually context-sensitive, in other words sensitive to what one takes the purpose(s) of Marx's value theory to be (see, for example, Elson, 1979; Saad Fihlo, 1997; Hong, 2000; Mohun, 2000).

Otherwise expressed: the view from nowhere is always a view from somewhere; and that 'somewhere' as far as Marx's value theory is concerned is usually some variant of the context supplied by Petry (1916). According to Petry, Marx's theory, in addition to consolidating and refining the accomplishments of classical political economy in the

quantitative area, also possesses a novel, qualitative dimension. Paul Sweezy takes up the story: "...in the case of exchange value there is...the quantitative relation between products; [but] hidden behind this, as Marx was the first to see, there is a specific, historically conditioned, relation between producers. Following Petry, we may call the analysis of the former the *quantitative-value problem*, the analysis of the latter the *qualitative-value problem*" (Sweezy, cit. Howard and King, 1976:141-142; see also Lowe, 1938). Another Marx-populariser, Ronald Meek, expresses it thus: "...[t]he qualitative aspect of the solution was directed to the question: why do commodities possess price at all? The quantitative aspect...to the question: why do commodities possess the particular prices that they do?" (Meek, 1967:10). Essential to the distinction is the idea that, as Dobb puts it, Marx's value theory is "...something more than a theory of value as generally conceived" (Dobb, 1971:11).

Like all successful popularisations, the Dobb-Meek-Sweezy way of understanding Marx's value theory works by playing on existing prejudice; and the prejudice here is that of Marx as late, great, classical economist (or, as Samuelson (1967) would have it, as not-so-great 'minor post-Ricardian'; in a similar vein, see Blaug, 1985). So, whilst (ostensibly) the idea, according to Sweezy, is to lay emphasis on the "...great originality of Marx's value theory...", Sweezy himself seems strangely unconvinced: the concept of abstract labour, for example, being just one of a number of instances where Marx "...develops...a basic idea of the classical school" (Sweezy, cit. Howard and King, 1976:146). Meek seems less convinced still; for Meek, the very source of Marx's 'great originality', viz., the qualitative dimension to his value theory, "...requires a certain amount of refinement and development before it can become capable of serving as the basis for an adequate theory of value". And what is meant here by adequate? Apparently, a theory that can do "...the same job which theories of value [have] always been employed to do in economics, that is, to determine prices" (Meek, 1977:124; see also Perelman, 1999:720). In a similar vein, Saad-Filho writes that Marx's vol. III transformation is "...necessary because...[without it].. a theory of value and price based on social labour cannot explain the exchange ratios between commodities" (1997:115; see also Roberts, 1997:498). One may well ask: 'necessary' for whom? In any case a strange

logic seems to be at work here: Marx's 'great originality' *vis-a-vis* standard political economy is of significance only insofar as it can be shown to derive from and conform to standard political-economic benchmarks.

Marx does indeed cover familiar classical political-economic ground; but to see this as an engagement within, rather than with, political economy is to do violence to its origins. The material in the first section of *Capital* began life as the 1859 *Contribution to a Critique of Political Economy* which, taken literally, would mean an inquiry into the limits and conditions of possibility of the political-economic project as such, *including* the classical political-economic project. (Interestingly, Marx's early term for political economy was national economy; see Marx, 1975; Ree, 1998). And there is no reason not to take Marx's title literally. Classical economy would no doubt claim the status of objective, disinterested inquiry - the sincerity of which Marx does not doubt (1974a:24-25). But still, when viewed from an historical-materialist standpoint, it is as much part of the bourgeois scene (being both generated by and functional for capitalist production) as are business cycles and joint-stock banks. It cannot help but fail to provide a critical assessment of capitalism, given that its concepts and categories are drawn uncritically from that world. It is all of a piece, then, that Marx, as an integral part of his own assessment of capital, would want to chart this failure.

1.2 The Birth of Economy

And yet, as Marx's epithet suggests, *classical* economy is more than just a deluded self-understanding of the bourgeois scene, although it is that as well. In abstracting the specifically economic from the totality of human experience and ascribing to it law-like regularities on a par with those of, say, Newtonian physics, the classical masters institute a new field of scientific endeavour. To be sure, economic phenomena had been studied since antiquity, but pre-moderns had no conception of this as constituting for theoretical purposes a self-sustaining, original integrity. In this sense classical inquiry is literally world-disclosive: the birth of economy as an object and as the science of its reproductive qualities and laws. As to its significance for Marx, the reader is left in little doubt: it is, he

writes, a "... discovery..mark[ing]..an epoch in the history of the development of the human race" (1974a:79). The 'recent scientific discovery' to which Marx alludes here, of course, is the classical labour theory of value. But for Marx this theory, properly digested, has a significance far greater than that of a mere cost of production, or labour-cost, theory of price - which in any case was neither novel nor, in itself, very profound. Rather, what the inner logic of classical economy discloses, a disclosure itself prompted by the slow but inexorable disintegration of a traditional political order, is the self-organisational capacity of human activity.

1.3 The Critique of Political Economy

Modern economy literally makes possible, as well as setting the limits of, political economic discourse. The possibility of a self-sustaining economic order was inconceivable until, in the wake of the mercantilist debacle, it (economy) showed itself as such. This is why, notwithstanding the otherwise insightful character of his economic inquiry, the pre-modern Aristotle literally had no idea (Marx, 1974a:65-66), the basis of economic order in classical Greece being explicitly political. Otherwise put, there is no Aristotelian economics because Aristotle lived in a world where in a certain sense there was no economy (Meikle:1995), a world in which, to say much the same thing, the potential for self-regulating economic activity failed to realise itself.

Just as attempts by the best pre-modern thinkers to theorise in a systematic, self-enclosed way that which was palpably driven by political intention necessarily led to puzzlement and *non sequitur*, so even the most workaday modern political-economic mind could hardly fail to make systematic connections. By the eighteenth century, in England at least, the economy of the political economists had become a 'real abstraction' (Marx:1973; Collier,1997). But still, the way in which the possibility of a self-organised activity revealed itself, conjoined with an empiricist cast of mind, set its own limits on the political-economic project. Self-organised activity appeared in the form of market- or capitalistically-organised activity and classical writers would always fail to distinguish the two. As Marx points out in the case of Ricardo, it is not, as some would claim, that

his thought is too abstract, but rather that, in failing to unwrap the general principle of self-organisation of activity from the empirical envelope of capitalist institutions, Ricardo's thought is not abstract enough (Marx:1969b; 2 below). To steal an Hegelian trope, Ricardo, and indeed classical economy generally, confuses self-organised activity-in-itself with self-organised activity-for-itself (Hegel, 1975; Likitkijksomboon, 1992).

In (mis)identifying *self*-organised activity as *capitalistically*-organised activity, classical theory to all practical intents and purposes reduces human interest to bourgeois interest. As against pre-modern (and most notably classical Greek) conceptions of the good life, in which a properly constituted inter-subjective space is seen as the *alpha* and *omega* of a fully human existence, from classical economy onwards economic attachments are treated as pure means. Characteristically, notions of justice and material well-being, which in the ancient and medieval worlds lacked meaning outside of a much wider web of (admittedly already corrupted) concerns for the good of the social, in modern Economy are abstracted from their original setting and raised to the status of absolute, though not necessarily mutually compatible, goods (see, for example, Walras, 1954). In classical economy the material interest reduces to the (re)productive capacity of a now objectivised, self-enclosed, economic sphere (whence Marx's allusion to its 'crude materialism', see 2 below) and the question of justice arises only in relation to the (property)rights-bearing bourgeois subject (its 'crass empiricism' (Marx, 1969a:89)). But at least in the first case an emphasis on intersubjectively-constituted activity remains - albeit as a set of particular, and reified, (indeed, fetishised) sociological imperatives. As the classical form of political economy degenerates through its 'vulgar' transitional phase into full-blown 'economics', however, so even the question of material well-being devolves onto the individual in the guise of an economy of personal intention. In the pragmatically-styled 'radical economy' of Arestis *et al* (1994) which, despite the date, explores themes almost as old as political economy itself, the sociologically-explicit orientation of classical theorising is resuscitated, though now in a more general form which problematises the institutional background as such. Institutional structure, including the market itself, may now be evaluated, modified, even replaced, according to whether or not existing arrangements really do sustain the best of all possible worlds in

regard to welfare and justice (cf. Shapiro, 1993). No longer is some kind of market arrangement simply posited as part of the solution. But, notwithstanding the institutional radicalism, this is still political economy - meaning that economic activity, its organisation and disposition, is to be treated as no more than mere resource (Simpson, 1995), to be drawn on at will in the satisfaction of 'human' need.

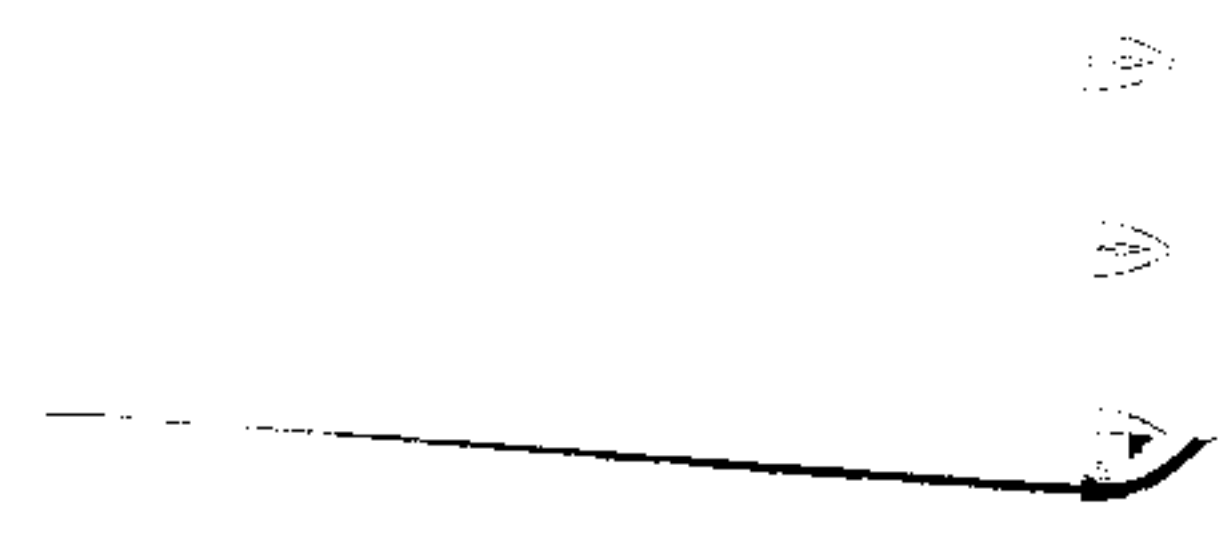
It is this instrumentalism which is the real target of Marx's critique: 'human need' formulated in such a way that it may be spoken of as somehow isolated from, and ultimately parasitic upon, economic activity cannot after all be properly human. For Marx, it is how economic activity is constituted, rather than its consequences, which is the ultimate measure of the good life. In any case, simply in virtue of giving voice and consideration to the possibility that human interest and economy may be *internally* related in some way - that, to put it crudely, it is the way we do things, and more particularly *why* we do things, rather than the consequences of our actions, which is of over-riding concern - Marx distances his own value-theoretic concerns from those of the political economists - be they classically, neoclassically or radically oriented. In so doing, Marx taps into a much earlier social-theoretic tradition within which the value-problem centres on the worthiness of activities rather than the value of products: indeed, within this tradition, to say that an artefact is worthy, rather than or in addition to the activity that produces it, (or, indeed, without reference to its own useful qualities (see Marx, 1972:296)) is to make no sense. To be sure, pre-modern thought, like political economy, instrumentalises activity, though in a different way: here, an action is never good or bad in itself but rather in its contribution to the flourishing of political institutions - institutions which, from the standpoint of activity, are just posited as some kind of 'natural necessity' (cf. Marx, 1972:257; Hutchings, esp. chapter 4). But still, notwithstanding a vision of the good life corrupted by a somewhat narrow conception of political form, in pre-modern thought the questions as to how and why activity is constituted - the question as to its purpose, or how it is driven, so to say - are at least as important in judging its value as are its material and/or psychological consequences. In modern value theory, however, the articulation referred to above is missing, the value-problem somehow bypassing the *why* of activity and relocating in the space of products.

As such, modern value theory is an attenuated form of value theory as traditionally conceived, and Marx's value theory is in essence a critique of that attenuation.

1.4 The Constituting of Marx's Value Theory

It is generally accepted, following Lenin (1969), that the resources for such a critique are drawn by Marx from classical economy itself, French socialism and German idealist philosophy (Arthur:1986). It is not difficult to see how such a synthesis might work. The 'real relations' of bourgeois society, first given theoretical form by classical economy, are subjected to a thorough-going critique, a critique which draws extensively on a version of Hegelian dialectic which is itself oriented by the French socialist ideas of 'association' and self-determined activity. In a sense the appropriation of German idealist method, but now placed in a materialist register by the French-socialist emphasis on doing rather than reflecting, gives to Marx the opportunity of thinking the unthought of political economy (cf. Hoy, 1996). At first, however, this 'unthought' comes out, as it does in Fourier, in a somewhat naive way - as the complete rejection of political economy and as the conflation of self-estranged, divided activity and the division of labour as such. As Marx was soon to see, however, division of labour is not really the issue but, rather, the way in which the division is effected (though one should add that a residual ambiguity in this regard would seem to have remained with Marx for most of his life [see, for example, Marx, 1974b:820]); and in any case, as is he is to comment much later in *Capital* 1, the socialisation of activity 'cannot be done away with' (Marx, 1965:251). At this early stage, however, and certainly up to and including *The German Ideology* of 1847, though well-acquainted with the classical political-economic canon, Marx had yet to fully take on board its significance, using it merely as a window on the world of material interest. The penny had not yet dropped that, like German idealism and French socialism, in its own (immanent) way classical economy is an *emancipatory discourse*.

The ultimate significance of Marxism's 'three sources', then, is not simply that each brings in synthetic fashion its own peculiar intellectual expertise to bear in the formation of Marx's mature thought (although of course this happens as well) but rather that in



some sense each of these traditions (manifestly in the case of French socialism and German idealist philosophy, and immanently in the case of classical economy) is driven by the problematic of emancipation. In each, however, the emancipatory interest expresses itself in a limited, one-sided way.

Classical economy is the bringing to consciousness of an otherwise blind economic imperative in which the logic of egoistic self-interest and the law of value work themselves out with iron necessity. The idea that there may be *another* kind of production – that the laws of bourgeois economy constitute but a special case of self-organised activity – no more occurs to the early economists than did it occur to Newton that classical physical theory would come to be subsumed under a more general method of predicting mechanical behaviour (see also Keynes, 1973:3). Ultimately, the freedom charted by classical-economic discourse is no more and no less than the self-unfolding of the law of value, an unfolding which determines that a surrogate for truly human freedom must be sought elsewhere. That surrogate is to be found in the dual logics of the spheres of self-legislating cognition and artistic expression (see 8.2 below). These spheres, then, in which the trace of self-conscious self-organised activity maintains itself, are properly seen as the mere reflux of a value-economic imperative masquerading as economic imperative *per se*. Otherwise put, a properly self-organised activity cannot be realised within material production as long as that sphere is driven by the logic of value-production. The human need for self-determination is then displaced into, indeed constitutes, the apparently autonomous spheres of intellectual and cultural productions.

German idealism focuses on the possibility of self-legislating thought; a self-constituting thinking subject turning inwards for foundations of or guarantees for its cognitive, moral and aesthetic repose. Ultimately, however, the conditions thus outlined merely define bourgeois subjectivity at rest. In Kant and the three *Critiques*, the bourgeois form of thinking subjectivity is taken to be reflective subjectivity as such, just posited, the mirror-image in fact of political economy's positing of bourgeois subjectivity in respect of material activity. In Hegel, the Kantian positing becomes a positing by and through history: Kant as story-book, as narrative; but no less a positing for all that.

Marx's objections to the shortcomings of the German idealist programme are well-known. German idealist philosophy identifies a self-constituting, self-legislating subjectivity. But the subject thereby identified is self-legislating in thought alone. As far as the *embodied* subject is concerned, the autonomy guaranteed by Kant's categorical imperative is no more and no less than that of a self-respecting bourgeois sensibility. In Hegel, the Kantian positing of a moral subjectivity becomes a historical self-positing through (apparently) inter-subjective means: the logic of history now retold as the coming-to-be, as culminating in, the self-conscious bourgeois and its institutional supports. But still, and though apparently prompted by perceived aporias in Kant's moral theory, Hegel's inter-subjective turn, if that is what it is (Ingram, 1996; 8.5 below), does no more than give the history, the genesis, the coming-to-be, of that sensibility and the institutional conditions under which it is sustained.

In French socialist doctrine, the scene shifts from freedom in theory to freedom in practice; from the conditions of self-determined thought to those which would underwrite self-determined activity. Here, though, the logic of capitalistically-oriented economy is set aside only by dispensing with the logic of co-ordination *tout court*. All activity is to become aesthetic activity, a 'nonsense experiment' on a par with Surrealism's attempt, aptly described by Habermas (1996: 49), to 'declare everything art and everyone an artist'. This is truly Hegel's 'labour of the negative', the 'negation of the negation' (see Taylor, 1979, chapter 2), and as such congenitally incapable of charting a course into positive waters, conditioned as it is by the presumption that *economic* activity cannot help but be empty of real human meaning. Despite an early flirtation with the aestheticisation of activity, Marx soon comes to see the idea for what it is: the immediate other, the negation, of the Smithian 'labour-as-sacrifice' principle - the positing of work as "...mere fun, mere amusement, as [indeed] Fourier, with *grisette*-like naivety, conceives it" (Marx, 1973:611).

On the other hand, both literally and metaphorically, Smith's labour is the sacrifice with which the bourgeois subject buys into the spheres of cognitive and aesthetic freedom. In

fact, one can say in fact that the separate, self-supporting worlds of self-legislating cognition and 'free' expression are being resourced - behind their backs, so to speak - by a parallel de-humanising of activity as economy.

Of course, Smith's principle accurately reflects that which activity has, and must, become in bourgeois society: mere sacrifice, or, labour; and it is in precisely this sense that Marx talks (and, again, accurately) of labour as the substance of value. Labour - value-positing activity - *appears* as part and parcel of *the* logic of economy, a logic previously denied or suppressed by the fiat of polity and 'community' in traditionally ordered societies. In *reality*, though, for Marx the logic of value is the logic of self-estrangement, and its substance, labour, the 'activity of alienation'. In other words, though material production, or economic necessity *per se*, cannot be avoided, *value*-economic necessity is no more than the projection of the human capacity for self-organisation onto a *particular* institutional space which that capacity creates and sustains behind its back. Hence Arthur's reference to Marx's 'critically adopted standpoint of labour' (1986:145): for sure in bourgeois society, activity has become labour, but, as against classical theory, for Marx the two are not identical. Indeed, one may say that his value theory, the foundation of his 'critique of political economy', is at bottom an argument for the non-identity of the two.

1.5 Aims and Objectives of this Work

What follows is an attempted reconstruction of Marx's labour theory of value in such a way that labour is explicitly understood in the above sense as a systematically constituted form of self-limiting activity. The aim is to show the various forms that this 'activity of alienation' takes and how key value-phenomena, *viz.*, organised markets, prices and money are implicated in this process of self-limitation.

Of course, Marx's value theory can and has been read in other ways. Following Marx's own later emphasis on the cognitive-juridical implications of his theory, most subsequent work in this area has concentrated on the possibility of using labour-value categories as a

means of laying bare the 'laws of motion' of capitalist economy: to show its apparently contradictory mode of development and, in particular, how bourgeois economy cannot help but violate its own norms of justice. Here, *pace* the Ricardian socialists, Marx wants to show that crisis and exploitation are not the manifestations of a degenerate form of capitalism but rather are endemic to bourgeois production *per se* (cf. Dobb, 1971)

But to see its cognitive-juridical component as the *whole* of Marxian value theory, as the tendency has been in recent years (but see Elson, 1979, and Smith, 1994), is to skate on thin ice. For, then, what begins life as critique of political economy degenerates into a kind of political-economic auto-critique in which, first, value-magnitude analysis is declared redundant (Steedman, 1977), and from which it is but a short step to the bankrupting of Marx's labour-value categories *tout court* (Roemer, 1988). In any case, to see the value problem as wholly a question of right rather than of good is to refuse the distinction Marx elsewhere draws between activity and labour, or at the least to refuse the idea that value theory can have anything cogent to say about freedom and self-determination.

1.6 Outline and Summary of Subsequent Chapters

After a brief excursus on method (2 below), the order of the subsequent chapters (3 to 6) follows the logic of Marx's own presentation of the value-problem in the early part of *Capital*, *viz.*, from value-form (3 and 4) to value-substance (5) and, thence, to value magnitude (6). The next two chapters (7 and 8) then attempt to make explicit what is only implicit in Marx's work itself, *viz.*, the connection between Marx's value theory, his theory of history, and the philosophical anthropology which, more than anything else, gives Marx's approach its distinctive character. The latter of these two chapters (8), in particular, explores more fully the philosophical background out of which that anthropology emerges. Finally, a short concluding chapter (9) attempts to succinctly pull together the main themes which organise the body of the text.

The thesis which I will want to develop below is briefly this: that if there is such a thing

as a distinctively Marxist 'method' then it is the study of socio-economic phenomena from the critically adopted standpoint of labour; and that Marx's value theory, properly elaborated, is the basis of such a study. But, then, this is not a matter of method in the traditional philosophy-of-science sense, according to which a set of value-neutral procedures are brought to bear on some pre-designated object of inquiry, but rather a matter of (re-)orientation. Thus to regard Marx as post-Hegelian dialectician (Lukacs, 1971; Shamsavari, 1991; Likitkijksomboon, 1992), as crypto-structuralist (Althusser and Balibar, 1970), as methodological holist (Lebowitz, 1988), as methodological dualist (Lysandrou, 1996), as critical realist (Sayer, 1979, Collier, 1977, Marston, 1998), or as one whose work is in need of exclusively methodological-individualist foundations (Roemer, 1981, 1988 and 1989; Elster, 1982 and 1986), is to miss the point. Application of any one, or any combination, of these procedures to political economy and its subject matter would not give Marx's critique of political economy but rather a new form of political economy. *Pace* Lukacs (1971) Marxism is not at all method but rather constitutes itself prior to, both in a logical and historical sense, any 'method' being brought to bear (cf. Magill, 1994). Ironically, Althusser's 'liminally modernist' reading of Marx (Crook, 1991) takes us closest to, and, at the same time, furthest away from a reasonable understanding of a distinctive Marxism and the centrality of his value theory in making that distinction. Althusser clearly grasps that Marx has first to constitute the object of his inquiry through a critical reading of classical economy, but then denies Marx the philosophical-anthropological positioning that would make such a reading possible.

With hindsight one can see that, from the standpoint of subsequent Analytical Marxist (AM) readings of Marx's value theory, the significance of Althusser's structuralist-scientistic intervention is to cast the agency-structure problem adrift from Marx's depth hermeneutic (Cohen, 1988; Smith, 1997). It is no coincidence that both structuralist and AM theorists come to regard Marx's value theory as of little or no interest to a Marxism which is now seen as wholly cognitive-juridically oriented. Now, of course, structuralist and AM theorists resolve the agency-structure problem in very different ways. In Althusser the structure-agency problem is resolved in favour of structure and the play of

'universal' structural forces; whereas in AM the problem is to show how an already-existing agency constitutes structure. In both, however, the relation between agency and structure is reduced to one of external causality - as against Marx's own more nuanced conception which sees agency-structure as internally related, and, in addition, problemises bourgeois subjectivity as such rather than in the one-sided guise of capital-labour (see **8** below). It is indeed a feature of the AM *genre* that it is the capital-labour relation alone which needs to be explained and judged, and both from what is essentially the standpoint of a bourgeois subjectivity. AM thus posits precisely that which is problemised by Marx in his value-project.

Of course the ostensible reason for AM's rejection of Marx's value theory *tout court* is not that of AM's own insidious attenuation of the Marxian project but rather because that, more than other aspects of his work, the value theory is in irredeemable hock to Hegelian-dialectical modes of thought. In other words, the fact that AM wants to impose upon 'Marxism' a project somewhat different to that which Marx had in mind lies hidden behind an attack couched in purely 'methodological terms. Indeed it is, but, as I will want to argue in **2** below, for good reason. In any case, as I will also want to show there, Marx is in good company: major developments in twentieth-century physical theory follow a strikingly similar pattern.

The next two chapters (**3** and **4**) reconsider and redevelop certain aspects of Marx's value-form analysis in the light of advances in the neo-Walrasian (GE) value genre. Such an exercise is of course doubly controversial. It is claimed that (1) Marx is fundamentally a disequilibrium theorist (see, for example, Freeman and Carchedi (eds.), 1996) and, in any case, (2) GE is of use only in an adequate re-theorisation of the capital-labour relation. Against (1): Marx's comment in the *Grundrisse* (see below). Against (2): AM assumes that which has to be proved (and incidentally misses a teleological-microfoundational problem at the heart of modern neo-Walrasian expositions - ironic, given AM's espousal of neo-Walrasian techniques as a way of reformulating Marxism without its traditional teleological excess). In apparent support of (1): one can certainly glean much textual evidence from Marx's own writings. But here one must carefully distinguish between the

contingent and the necessary: between Marx's characterisation of actually-existing commodity-producing economy and that which is adequate for the characterisation of bourgeois economy *per se*. In the case of the former, Marx writes, "the autonomization of the world market...the development of monetary relations..and all-round interdependence in production and consumption together with the indifference of the consumers and producers to one another...[gives] a contradiction [which] leads to crises". In the case of the latter, however, "efforts are made to overcome it: institutions emerge whereby each individual can acquire information about the activity of all others and attempt to adjust his own accordingly.....[Consequently] although on the given standpoint, alienation is not overcome by these means, nevertheless relations and connections are introduced thereby which include the possibility of suspending the old standpoint" (Marx, 1973:160-161).

By 'alienation' Marx here means a situation in which "the relations of production and distribution stand opposed to the individuals, to all individuals" (*op. cit.*) - literally a loss of self-control - a situation which, according to what Marx has to say above, is a basic feature of bourgeois economy, ever-present, even in circumstances (and the Walrasian GE model exemplifies these) in which the possibility of a certain kind of co-ordinational failure is 'suspended'. In 3 below I examine the basis of this claim, an examination which has obvious implications for the (im)possibility of a meaningful (Marxist) market socialism (cf. Adaman and Devine, 1996).

Chapter 4 has as its aim the development of a Marxist theory of money and, as such, assumes a pivotal role in the entire exposition, bridging as it does the (apparently) exchange-oriented analysis of the previous chapter and the production-oriented focus of those that follow. Marx's value-form analysis is interesting in that, within it, he espouses - though, as I will want to argue later, somewhat unsuccessfully - what Keynes was later to refer to as a 'theory of monetary production' (Keynes, 1973-89). By 'monetary production' I take to mean a system of production in which monetary exchange is essential to its adequate functioning (Hahn, 1972). For Marx, commodity production is *the* system of monetary production - money 'crystallising' out of the process of commodity-exchange.

Axiomatically, of course, any form of exchange entails the (ultimate) physical transfer of products, just as any form of private exchange entails the transfer of legal title to such products. But *commodity*-exchange, according to Marx's usage, entails the exchange of products expressly produced for the purpose of private exchange, and thus in addition presupposes a certain commensurability of motive *at the level of production*. In a certain sense, therefore, one may say that the commensurability of commodity-products which money facilitates in the moment of exchange mirrors, represents, symbolises, the commensuration of motive in the moment of production.

For Marx, however, money is more than symbol. But it is here - with regard to the practical, rather than the merely symbolic, role of money in the commodity economy - that one runs into difficulties if one follows Marx *a la lettre*. To be sure, the role of monetary institutions in regard to the functioning of bourgeois economy can only be adequately understood, if then, as a spontaneously-arising attempt to head off impending co-ordinational failures. But precisely which kind of potential co-ordinational failures would explain the use of money? Here Marx, along with many non-Marxist and neo-Marxist monetary theorists (Freeman and Carchedi (eds.), 1996), confuses the categories of money and medium of exchange. Properly speaking, money is a specialised means of payment and, as such, is only one of a number of possible mechanisms which it seems would facilitate an orderly system of commodity-exchange. Consequently, an adequate theory of *monetised* commodity-exchange would need to explain why commodity-exchange necessitates money rather than some other medium. Put briefly, Marx expounds what I will call a 'quantity' theory of money - meaning that for Marx money arises out of a need to somehow co-ordinate the otherwise socially chaotic quantity-plans of private producers. As I will want to argue in chapter 4 below, however, the essential role of money is to regulate the *quality* rather than the *quantity* of commodity-products, thus emphasising money as arising from a *private production* problem.

The theory of money outlined in chapter 4, then, differs in at least one important respect from that of Marx: for although both view the institution of money as a spontaneously arising attempt to resolve a co-ordinational problem associated with commodity-

exchange, the precise nature of the difficulty is different in the two cases. On the other hand, the argument in chapter 4 is Marxian in spirit, if not in word, in seeing money as resolving problems which have their root, not in commodity-exchange as such, but rather, in commodity-*production*. Writers from Aristotle (1985) onwards (see, for example, Dixon and Kay, 1995) distinguish the circuit C-M-C' - commodity-exchange, pure and simple - from capitalist commodity-exchange, viz., the circuit M-C-M'. Chapters 3 and 4 endeavour to show however that, properly speaking, there is no C-M-C': if it is really commodity-exchange which is being postulated, as against some administered form of pseudo 'commodity'-exchange, then it is M-C-M' all the way down. Of course, as Marx says, "...from the moment that men in any way work for one another, their labour assumes a social form" (1974a:76). But, as shown in chapter 3, the form of co-operation constituted through commodity-exchange follows a quite different logic to that constituted through other means. Chapter 4, in turn, shows money to be the natural consequence of that logic. And, to reiterate, to say that a quite different logic is at work here is to say that commodity-producers are differently motivated as compared to other kinds of producers.

Chapters 3 and 4 beg a question which chapters 5 and 6 attempt to answer. If commodity-production is the activity of egoistic self-interested persons otherwise indifferent to the systemic consequences of their actions, then in what sense, if at all, is it meaningful to regard their activities as social? Of course, commodity-producing activity cannot be regarded as *directly* social in the way that activity in other forms of economy may be so viewed. In traditional societies (indeed, in any non-commodity-oriented society) the performance of one's allotted function as such sets up an immediate claim on social resources. Now, to be sure, in producing commodities one *aims* to set up a claim on social resources, the difference here being, however, that the claim is not cashed out, so to speak, until after the event (De Vroey, 1981 and 1986; Gouverneur, 1990). Such activity, then, though just as co-operative as its immediately social counterpart, may be said to be *indirectly* social in character. This is the form of activity that Marx takes to be the 'substance of value' - in the sense that its phenomenal forms, viz., markets, prices, money, etc, have as their *raison d'etre* the effective disposition of activity throughout the

economy in the absence of a more explicit or 'direct' mechanism for so doing. If, as the later Marx seems to do, one lets the term labour function generically - that is to say, as a placeholder for activity pure and simple - and one suppresses the 'indirectly', then one arrives at the formulation: social labour is the substance of value. Social labour, then, may be said to ground the (exchange-) value character of commodities in much the way that what Marx calls concrete labour (the technical side of the operation, so to say) grounds use-value.

Still, it is possible to observe the distinction between a labour which posits use-value and that which posits exchange-value, and yet, at the same time, be unclear as to the precise nature of the latter. Often in Marx, and in much of subsequent writing also, 'substance' is treated somewhat naively as a *quantity* of some kind of labour, as if a quantity of money-price can somehow be reduced to a quantity of abstracted labour. As I will want to argue in chapter 5, however, the (indirectly) social labour which is said to be the substance of value is not substance in the forgoing sense. Indeed, what is called social labour is not, properly speaking, a type of labour (measured in scalar quantities) at all: social labour as substance of value refers not to work as such but, rather, to the way work is organised or structured in commodity-producing economy.

What, then, is to be made of the concept abstract labour - which, supposedly, can be rendered as scalar quantity? From what has already been said, to collapse social into abstract labour - as, for example, Kay, 1979 and Gouverneur, 1990 seem to do - is to conflate the quite different mathematical structures of the two labour-concepts.

According to the interpretation given in chapter 6, the entity Marx refers to as abstract general labour is not to be regarded as some homogenised form of commodity-producing labour but rather as a measure, so to say, of its socialness. I consider there how such a measure is constituted.

One may summarise the results of chapters 5 and 6 as follows. Concrete labour refers to the use-value-oriented aspect of activity - activity, so to say, emptied of its social context - and may be represented as a multi-dimensional space of reals. Social labour refers to the

structure imposed upon this space so as to orient activity socially and is shown as a certain sub-space of the above. Indirectly social labour - the substance of value - refers to that subspace associated specifically with commodity-producing or (exchange-) value positing activity. It is the structure which grounds, and is reproduced through, the agency of commodity-oriented concrete labour. Finally, abstract labour - a real-valued function defined on the space of concrete labours - is *not* the substance or ground of value but rather its measure; it is therefore effect, not cause.

Chapters 7 and 8 attempt to place the afor-summarised interpretation of Marx's value theory in the context of both his early humanism and later materialist conception of history. Without disputing the existence of certain discontinuities in Marx's intellectual development, it is argued in chapter 7 that a turn towards a theoretical anti-humanism is not one of them. I will want to argue there that what distinguishes the 'youthful' from the 'mature' in Marx is not the abandonment of the early humanist perspective, but rather the realisation that a fully human way of life, and *a fortiori* its denial, should be conceived of as a material state of affairs. Indeed, by reinterpreting the key historical-materialist categories as projections onto the space of material possibilities, one may read into Marx's mature critique of capitalist relations his early humanism carried on by other, more materialist, means. Of course, Marx's humanism is not the conventional reductive-style humanism of the Enlightenment. But, be that as it may, and as I will want to emphasise in chapter 8, some form of humanist positioning is essential to Marx's project, otherwise the question: material well-being and justice for what kind of being goes unanswered, and his value theory degenerates into political-economic discourse rather than constituting its critique. A short conclusion (9) then draws together the main themes addressed herein.

2. ON ANALYTICAL MARXISM AND THE ANALYTIC OF MARX.

2.1 Introduction

The consensus once was that the difference between Marxist and non-Marxist social thought is in large measure method-related. Although few took the Lukacs line that Marxism is *all* method (Lukacs, 1971:1) the general view, nevertheless, was that adherence to Marxist principles carries with it a commitment to a particular methodology and precludes the use of others. But not any more. Since the late 1970's a substantial body of work has accumulated under the rubric Analytical Marxism (henceforth AM) in which supposedly traditional Marxist concerns are theorised in non-traditional ways.

It is fair to say that many of the characteristic features of the AM *genre* do not immediately appear as *a priori* incompatible with traditional Marxist concerns. In Maarek (1979), for example, game-theoretic techniques are deployed within a traditional Marxian framework to good effect (for further discussion of this point, see Lebowitz, 1988). The underlying philosophy which seems to drive the more extreme versions of the AM programme, however, can hardly fail to do violence to the hitherto-accepted wisdom - requiring as it does the substitution everywhere of analytical-reductionist procedures for what Elster (1986:22) calls the 'dated methodological conceptions' favoured by Marx himself. The claim is that Marx's work lacks 'microfoundations' - a deficiency which AM purports to rectify.

I will want to argue below that because AM cannot find microfoundations in Marx is not to say that none exist (Lysandrou, 1996). But my immediate concern is with a related issue. Elster pictures Marx as a child of his time - locked into holistic, pre-modern ways of thinking. Truly modern science, so the story goes, has long since cast aside as unproductive the methods Marx employs (Elster, 1986:23). A less selective reading of the scientific record, however would tell a different story.

2.2 Analytical Marxism and Modernity.

The story I have in mind is one that draws on developments in twentieth-century physics. Although such developments are alluded to by Elster (*op. cit.*:22), they are never made explicit. Instead, AM appears to rely for inspiration on physical of an earlier vintage: the idea that "... all institutions, behavioural patterns, and social processes can in principle be explained in terms of individuals only: their actions, properties and relations" (Elster, *op. cit.*) is social science viewed through the lens of classical physics. But the irony here of course is that for all the talk of modernity in science, the classical picture of the physical world had ceased to be modern some eighty years ago. [Note also: Elster's programme requires that 'individuals' and their 'properties' may be clearly defined prior to 'institutions' and 'social processes'. See Arthur, 1988)].

The first of the classical conceptions to fail was that was that of absolute time (although one could argue that a strictly classical view of the world had already been compromised by Maxwell's 'non-commonsensical' theory of electro-magnetism, or again, earlier still, by Newton's corpuscular theory of light (Krauss, 1990)). It had been known since Galileo that judgement of distance is relative to one's frame of reference. To take Galileo's own example (Drake, 1953:186-187): a person shut away below deck on a ship moving at some constant (non-zero) velocity would have a very different (but no less valid) idea of the distance travelled than would an observer viewing from the shore. But it was generally supposed that the judgement of time could not give rise to analogous difficulties: if it is accurately measured from the shore (or from anywhere else in the universe) that the ship's journey has taken exactly one hour, say, then it was assumed that the ship's passenger with access to an accurate time-piece would have to agree.

By the turn of the century, however, discoveries to do with the behaviour of light had rendered the classical view of time untenable. Imagine a beam of light and two observers, all in uniform motion but at different rates. Now the speed of the light is fixed by Maxwell's 1865) equations and, as the experiments by Michelson, Morley and Miller subsequently showed (1881, 1887, 1904), both observers, though themselves travelling at

different speeds, would estimate the same speed of light (Hamilton, 1973, esp. p.16). But how can the two observers form a common estimate when (i) speed is given by distance travelled divided by time and (ii) the estimate of distance itself is relative to the motion of the observer? (Hawking, 1988, esp. p.21). The only way, of course, is if time is also relative to motion - somehow contracting the faster the observer travels. Considerations of this kind led Einstein and others to the Special Relativity Theory (1905), in which the (classically) distinct concepts of space and time are merged into a four-dimensional hybrid formulation and the Minkowskian metric defined thereon assumes the role of temporal measuring-rod hitherto played by the earthbound clock. In the later General Relativity Theory (1915) the plot is given a further other-worldly twist with the postulate that bodies left to their own devices travel along geodesics in space-time rather than in straight lines (Russell, 1969; Penrose, 1990).

But still, Relativity Theory, though conceptually adventurous, could hardly have been seen by the scientific community of the early twentieth century as news from nowhere. The nineteenth century experimental evidence on the behaviour of high-speed, high-energy phenomena, sparse though it was, simply could not be accommodated within the pre-relativity classical picture. And now the low-energy world would begin to tell a similar story. The apparent stability of the atom, for example, was not in apparent accord with classical principles; nor was the discrete radiation frequencies emitted by atoms which give rise to their characteristic spectral lines (Davies, 1984). It took no great leap of the imagination for Planck and others (*circa* 1900) to see that electro-magnetic energy cannot be propagated in a continuous way, as postulated in classical theory, but rather (and as Newton himself always suspected) must also have discrete or quantum attributes.

One should emphasise that discreteness of itself presents no problem for the classical world-view. On the contrary, Newton's mechanics is concerned with a universe made up (in the main) of discretely existing phenomena. So to say that light, for example, is composed of small particles, or photons, though a departure from the influential Maxwell wave-picture of light, is not to depart from classicism *per se*. But this is not what the early quantum theorists were saying. Rather the essential quantum-theoretical idea, and

stated (as time went on and the experimental evidence accumulated) with ever more conviction, was that low-energy phenomena display features consistent with both wave- and particle-pictures (Heisenberg, 1989, esp. chapter 2).

The Young two-slit experiment illustrates perfectly the wave-particle duality which seems to typify the low-energy world. A beam of light is directed at a photographic plate through a small slit in an intervening screen. Although at normal intensity the beam appears to be continuous, a careful examination of the plate would reveal that the light arrives only in discrete packets - in accord with the particle-corpuseular theory. When a second slit is cut in the screen, however, a different picture emerges. Consider again the initial experiment. Imagine the fairly uniform band of light produced by a single horizontal slit. Now one might reasonably expect the opening of the second slit to merely duplicate the one-slit situation. But in fact the distribution of light will be such that the light arriving at certain regions of the photographic plate is intensified, whilst other regions now receive no light at all. This is a strange phenomenon when viewed from a particle-theoretic perspective: for how can light which is perfectly able to arrive at a certain position on the plate when only one slit is open find itself blocked when an additional hole is cut? The explanation must be that some of the light passing through the second slit interferes and cancels in wave-like fashion with some of the light emanating from the first. Stranger still, the above pattern obtains even when the light-intensity is reduced to such an extent that the power source releases only one photon at a time: it is as if a single photon passes through both slits at once and interferes with itself.

In sum, then, discoveries made in the early decades of this century revolutionised the shape and content of physical theory. The classical masters, their conceptions having been based on too narrow a range of experience, were shown to have painted a quite misleading picture of the world, a picture coloured by what Whitehead (1975:141) calls the "...triumph of organised common sense". He continues: "...it grounded itself upon what every plain man could see with his own eyes, or with a microscope of moderate power. It measured the obvious things to be measured, and it generalised the obvious

things to be generalised" (op. cit.; see also Hacking, 1983). But where does all of this leave the AM blueprint for a thoroughly modern Marxism?

I will want to return almost at once to the AM characterisation of Marx's method. My immediate concern, however, is with the method which AM seeks to put in its place and, more particularly, with the grounds for that substitution.

The case made for a thoroughly reductionist Marxism rests on the apparent success enjoyed by reductionist strategies elsewhere, in both natural and social sciences. It is not claimed by Elster *et al* that a complete reduction has already been effected in every field. Indeed, the attempt in some cases ".. may well be pointless in the present state of knowledge" (Elster, 1986:24). The point, however, is "..that the search is not inherently sterile....*a full reduction is possible in principle...*and (in many instances)...a partial reduction is well under way" (*ibid.*; my italics).

It would be absurd to deny the central role played by the analytical method in the development of science. But, by the same token, it would be wrong to conclude, as Elster seems to do, that modern science has shown reductionism to be the *only* strategy productive of knowledge. On the contrary, many of the key concepts in modern physical theory are synthetic ones - and synthetic in a holistic way. So, for example, the concept of space-time, at the heart of Special Relativity Theory, fuses into an *irreducible* whole the notions of space and time - notions hitherto regarded as quite separate. Or, again, it is now recognised that low-energy phenomena can only be understood by using both wave *and* particle characterisations: position and momentum in that feild appear as somehow internally related. Explanations of quantum-theoretic objects, therefore, cannot be reduced to wave- *or* particle-explanation, as strictly classical descriptions would require. All of which, far from showing a trend towards Elster's 'full reduction', rather confirms Davies' observation that "...physicists have long since abandoned a purely reductionist approach to the physical world" (1990:64; both Karsten, 1990, and Drakopoulos, 1990, make much the same point).

The lesson one learns from twentieth century physics, then, is that putting things together can sometimes have more explanatory power than taking them apart. Yet, in spite of the cypto-holistic turn in physical science, Elster (1986:22) continues to insist that holism is one of those 'dated methodological conceptions' which infect Marx's work. 'Dialectical deduction', he claims, is another. He writes: "Not everything Marx learned from Hegel led him astray. Although Hegel's *Logic* is among the most obscure books ever written, the *Phenomenology of Spirit* is vastly more valuable...[and]..Marx was under the influence of both. Sometimes he seems to espouse the doctrine of the *Logic*, that the world is contradictory in the sense that two mutually inconsistent statements can both be true. *This view, frankly, is nonsense*" (Elster, 1986:194; my emphasis).

It is of course undeniable that Marx was profoundly influenced by Hegel (Shamsavari, 1991; Likitkijksomboon, 1992); and it is also the case that in those situations which most readily spring to mind, two contradictory statements cannot both be true. So, for example, it happens that my desk is made of only one kind of timber: it is therefore either a mahogany desk or a not-mahogany desk, and to insist upon the truth of both descriptions is, 'frankly, nonsense'.

But not all situations have the 'my-desk' structure, and, for a certain class of problem the use of what Gillies (1993:114) refers to as 'non-standard logics' makes perfect sense. Consider again the two-slit, one-photon experiment. On the basis of the evidence one may say that the photon has passed through slit A. On the other hand, one may also say that the photon has passed through slit B. Both statements are true in a certain sense and yet also contradictory because how can a single photon be in two places at once? Or recall the time-dilatory effects central to Special Relativity Theory. A clock is somehow sent on a speed-of-light round trip into outer space. According to an (accurate) earth-bound estimate, say, three years elapse before its return, whereas the space-clock itself accurately registers a journey-time of zero. Which of the two clocks is telling the truth? According to Einstein, both are - in a manner of speaking. There is an important lesson here. The problems described above are 'non-sensical' only when viewed from an epistemological position which says that any statement which is not false must therefore

be telling the truth, the whole truth, and nothing but the truth.

But how can the analytical method produce anything but partial truths when a reductionist strategy by definition has to leave something out? (Dennett, 1992; Devine, 1993). Leave aside for the moment the always already theory-constituted nature of 'data' (Feyerabend, 1981). Still, one always analyses material from the standpoint of a particular theory or way of organising information - so that, even if one takes the somewhat naive interpretation of a pristine, uncontaminated information-set 'out there', so to say, just waiting to be appropriated (Hacking, 1983), the kind of knowledge generated will nevertheless be sensitive to the prior conceptual perspective which one brings to bear. Had Einstein *et al* taken the 'whole truth' line, and so dismissed one of the two clock-readings as a mistake, there would be no Relativity Theory. Instead, the foundations for that body of theory were laid on the daring speculation that both readings should be taken seriously, and thus that the apparent inconsistency between the two arises out of a certain conceptual naivety with regard to the interpretation of the results.

The reworking of old, partial and sometimes inconsistent truths into a richer, more sophisticated conceptual framework, then, is a hallmark of modern physics, and, one suspects, of major developments in other fields besides. It is certainly, as I will want to argue below, a hallmark of Marx's value theory.

2.3 The Extra-Analytic of Marx.

The claim here is not that Marx and the major figures of early twentieth-century physics are somehow philosophically *simpatico* in any deep sense. For Einstein, Bohr and Heisenberg alike, the problem seems to be one of finding an ultimately depthless theoretical formalism within which apparently contradictory appearances may be reconciled, held together, but, at the same time, *without going beyond appearance*. Notwithstanding Heisenberg's protestations to the contrary, the Copenhagen version of quantum theory, with its textbook instrumentalism and adherence to a pre-theoretical domain of classical observation language, remains firmly rooted in the modern positivist

tradition (Feyerabend, 1981, esp. chapter 2; Gillies, 1993, esp. chapter 1; Wright, 1993); likewise Einstein, for whom 'real existence' consists in 'sense experiences' and 'sense impressions', albeit those which have attained a "significance...to a high degree independent" of their particular origins (Einstein, 1954:291).

Nevertheless, and notwithstanding its broadly positivist commitments, modern quantum theory in particular looks incongruous alongside Elster's template for a modern science purged of 'dialectical deduction'. Indeed, the form of 'dialectical deduction' espoused by Neils Bohr, for example, is far more extreme than that alluded to above. According to the interpretation given there, quantum 'contradictions' arise from a somewhat limited, one-sided conception of certain experimental results and which may therefore be accommodated, or softened, so to say, within a more nuanced perspective. For Bohr, however, quantum theory offers 'no new conceptual scheme': for Bohr, those contradictory statements which arise from a proper observational record of the low-energy world are unavoidable, tied as we are to "...our customary [ie. classical] points of view and forms of perception" (Bohr, 1932:1; Feyerabend, 1981, esp. chapters 2 and 4). Bohr here may be read in one of two ways: as espousing either what Priest (1987) refers to as a dialethic position, according to which statements may be straightforwardly true (ie. accurately reflecting the world as it is) and yet also contradictory (Hunt, 1993), or as saying that the world will always *appear* contradictory, given our capacities for knowing that world. The latter view owes much to Kant (1983) - though for Kant, of course, contradictory appearances may (almost) always be avoided by properly observing our cognitive limitations. On either interpretation, however, some form of 'dialectical deduction' seems to be inevitable.

Now in at least two important respects Marx's 'dialectical deductions' bear little relation to those of Einstein and the quantum pioneers. In particular, their conceptions of 'reality' as identical to regular and verifiable appearance, and of the limit of theoretical ambition as the accommodation of brute fact, remind one not of Marx but rather of the pseudo-science roundly condemned by him as 'vulgar economy'. *Bona Fide* science would surely attempt to 'deeply penetrate its subject matter', attempt to 'rediscover the hidden

connection' (Marx, 1972:501, 515). But as in vulgar economy, in standard presentations of relativity and quantum theory "...the advance from the surface to the core of the problem is not permitted" (*op. cit.* p.139). Lacking immanent principle or substance, both content themselves with the systematic re-presentation of appearance, a 'kind of fiction without fantasy' (*ibid.* pp.453, 485-6). This is not, of course, to claim that quantum and relativity theory should be seen as anything other than *bona fide* science. In physical theory, arguably, the 'advance from surface to core' is simply not possible, or, at least, in a domain where prediction and control are the final arbiters of success, the 'surface/core' question takes on a meaning quite different to that alluded to here by Marx (Outhwaite, 1987). Vulgar economy, however, has no such defence. In a remarkably modernist aside, Marx writes: "...when a man seeks to accommodate science to a viewpoint which is derived not from science itself (however erroneous it may be) but from outside, from alien, external interests, then I call him base" (Marx, 1972 :119).

For Marx, of course, classical economy is not to be counted alongside vulgar presentations as 'base', attempting as it does a journey from surface to core in search of immanent principle. It is, however, 'erroneous' in its *uncritical* adoption as principle or law, not that of economy as such, *viz.*, the possibility of self-organised activity (and actually the immanent principle of economy), but rather the regime of bourgeois-organised activity. Thus in classical theorising bourgeois-organised activity is treated as self-organised activity as such; or, to use the terminology of the early Marx, self-organised activity is (mis-)identified as labour (see Marx, 1977a). Marx therefore cannot claim, as Bohr does in respect of quantum theory, that he offers 'no new conceptual scheme', that the classical viewpoint is somehow unavoidable. The advance-to-core for Marx must consist precisely in the development of a new conceptual scheme - one which exposes the instrumentalist bias of the classical labour-value approach.

But still, notwithstanding these important caveats, there are interesting methodological affinities between Marx's re-theorisation of the value problem and the ideas which mark the transition from pre-relativity classical physics to the more modern conceptions of Einstein, Bohr *et al.*

Both have analytical foundations, which in Marx take the form of the "*..analysis of commodities...and the analysis of the substance and magnitude of value*", in sum, the "*..derivation of value from an analysis of exchange*". Always one has to "*..appropriate the material in detail...analyse its different forms of development*" (Marx, 1974:18, 22, 28; my emphases). Marx offers no alternative to the work-a-day sifting and classification of data and the deductions made therefrom. On the contrary, the study of socio-economic phenomena, offering as it does little opportunity for experimentation, places a special emphasis on the analytical method, for when "*...neither microscopes nor chemical reagents are of use...the force of abstraction must replace both*" (Marx, 1974:19).

On the other hand, to treat analysis as the whole of social inquiry is to forget that its conceptual resultants, unlike chemical residues, have no life of their own. As Hegel (1975) puts it: 'essence must appear', so that a proper grasp of essence would have to include an explanation as to how and why it takes the form that it does (Murray, 1993). Thus if form fails to appear in social inquiry, then so, properly speaking, must essence. I will want to say more about how the structure of Marx's value theory may be made more perspicuous through a reading of Hegel's systematic dialectics (Smith, 1993) in the next chapter. For the moment, however, suffice it to say that for Marx, as with the transition to modern physics, analysis is not enough. In both cases the received (analytical) wisdom is treated critically, turned in on itself, thus fusing the normally separate analytical and philosophical modes of thought - establishing a dialogue between what Gunn (1989) calls 'first- and second-order theorising'. Analytical inquiry is taken to be productive of truth but only in a limited sense. The critical-dialectical problem is then to identify the nature of the limitation and furnish a more adequate conception of things.

Consider then the classical labour theory of value. Of course one can say that labour is the substance of value in the sense that commodities give material form to value and are in turn human artefacts. On the other hand, how can everyday, a-historical occurrences like processing food or building houses be held responsible for the commodification of the product-space which, in historical terms, is anything but everyday? So, for example,

the activity of the tailor explains why a suit of clothes has wide lapels and a pleated waist but says nothing about the price-tag. This 'labour yet not-labour' configuration echoes the relativity and quantum paradoxes reported above. Here again one has apparently truthful statements which nevertheless contradict one another. And, again, the way out of the impasse is through conceptual development. In (Special) Relativity Theory the concepts of time and its relation to motion are reformulated so as to allow the old classical truths to co-exist in a non-contradictory way. Quantum theory enriches this framework still further by fashioning a more sophisticated conception of 'object'. For Marx, in regard to classical value theory, the concept of 'labour holds the key: "...all understanding of the facts depends upon this"; it is "...the whole secret of the critical conception"; it is "...the pivot on which a clear understanding of political economy turns" (Marx, 1974a:49). The 'secret' or 'pivot' to which Marx alludes here is a conception of labour that mirrors the complexity of the commodity-product. Indeed, the fact that the commodity doubles as both natural and social object only begins to make sense if labour is theorised in the same dualistic way. As I will want to stress in chapter 5 below, for Marx it is not labour *qua* work which explains the social attributes of the commodity but rather the way that work is structured or organised in the commodity-economy (Marx, 1972:129; 1974a:48-49). Once the term labour is properly explicated and understood as denoting a doubling or conjugating of material-technical and social-historical qualities then no confusion arises. And this is precisely the meaning which Marx reads into classical discourse: to be sure, the distinction between the two constituting aspects of commodity-producing labour - between its 'qualitative' and quantitative determinations - is 'practically made' in classical discourse, but never 'expressly and with full consciousness' (1974:84).

The muddle over labour and its relation to value prior to Marx's intervention, then, is in perfect accord with a more general 'classical' approach to science characterised by an analytical framework in which 'commonsensical', everyday notions predominate (Whitehead, 1975). Here, in regard to the classical-economic conception of labour, it is symptomatic of the problem that only one word ('labour') is used when it seems as though at least two are needed. Or, again, the classical masters speak of 'productive' as though no ambiguity could possibly arise, when in point of fact the production of commodities can

at one and the same time be both (materially) productive *and* (commercially) unproductive (Marx, 1972:120-122). These and other 'verbal disputes' (see Marx, 1972:110) which surface in late-classical discourse, however, tell of a conceptual, rather than linguistic, naivety - namely, the conflation of natural and social phenomena and, related to this, the attribution of qualities peculiar to the modern form of social relations to social relations *per se* (Marx, 1974, chapter 1, section 4; 1973:83-88).

Just as it is impossible to chart a purely analytical course from pre-relativity physics to the theories of Einstein and the quantum pioneers, so also Marx is only able to take the positions which he does having first taken philosophical stock of the classical-economic conceptual repertoire. On the other hand, the shift from classical to Marxian value theory amounts to more than a simple substitution of one line of analytical reasoning for another. For Marx, all analytical formulae, even his own, tell at most only partial truths. It is therefore necessary to devise more complex formulations which, though affirming both sides of the story, do so without claiming the identity of the two. In this respect Marx's treatment of the commodity is exemplary. Recall that what should be an essentially complex picture had collapsed in classical economy into a simple materialism, one in which the social function of the commodity is disregarded as a "...thing of no importance, as having no connection with... [its] inherent nature" (Marx, 1976:85, note 1). If emphasis must be given, Marx argues, then it should go to the social side of things - to exchange-value rather than to use-value - for it is the former which "...stamps...[commodity-] production as a particular species of social production...gives it its special historical character" (*ibid*).

Now, just such an emphasis pervades the opening two sections of *Capital* in which Marx reduces exchange-value to social labour in textbook-analytical fashion. But still, in its own way the viewpoint Marx arrives at initially, suppressing as it does the bodily form of the commodity, is as one-sided and ultimately as sterile as the earlier classical presentation. Significantly, it is only when Marx takes a more nuanced view in which the natural and social aspects of the commodity are seen as complementary that many of the distinctive features of his system - in particular, the theories of money (chapter 4 below)

and crisis (Lebowitz, 1994) - begin to take shape. it is also significant that classical economy is seen by Marx as at its weakest in those same areas. So, for example, money, as theorised by the classical writers, "..is no more 'money' than a ticket for the theatre" (Marx, 1974a:97). Or, again, no serious theory of crisis is possible in Ricardo because he assumes the capitalist "..produces as if he were fulfilling orders placed by society" (Marx, 1972:121).

Here again, in regard to the principle of complementarity, Marx's approach foreshadows later developments in physical theory. Up until the end of the nineteenth century the propagation of energy was generally regarded (*pace* Newton) as a continuous phenomenon - typified by the Maxwell wave-picture of light. The failure of Rayleigh and Jeans to account for the behaviour of black-body radiation at high temperatures, however, exposed the limitations of this view. Thus it was that in the early years of the twentieth century the consensus moved towards a quantum interpretation, prompted first by the discovery of Planck's law of heat-radiation and later by Einstein's successful application of this law to the behaviour of other phenomena. This work, taking as it did an essentially discrete view of apparently continuous events (recall, for example, the diffraction and interference of light - properties usually taken to be characteristic of continuous phenomena), duly revolutionised the way in which physicists thought about the micro-world. Nevertheless, with the benefit of hindsight one can say that a truly modern view did not emerge until much later, in the 1920's, when Bohr and Heisenberg began to realise that the classical wave-picture is not so much superceded as complemented by the newer particle-description given by the quantum pioneers.

2.4 Concluding Remarks

In sum, whilst AM advocates a purely analytical Marxism - one which would conform to the AM conception of modern science - modern science itself seems to have charted a rather different course. Physical theory, as reported above, has long since abandoned the exclusively reductionist strategies characteristic of the classical era. Or again, in chemistry, Prigogine's Nobel Prize-winning work on dissipative structures (Prigogine and

Stengers, 1985) tells a similar story. Even Gilbert Ryle, analytical philosopher *par excellence*, warns against spurious reductions (Ryle, 1963, esp. pp.74-80 and pp.117-118). Of course, no-one is arguing that reductionist strategies have *no* place in theory construction. But, as Hacking (1983, esp. chapter 7) notes, a reductionist strategy will always have to be argued for on a case-by-case basis.

The case for a purely reductionist Marxism is somewhat thin. Ironically, it is Marx's mid-nineteenth century prototype rather than the late-twentieth century AM reformulation of his project which more closely mirrors the methodological hallmarks of modern (twentieth century) physical science: the coupling of analytical and critical-philosophical faculties and the use of the complementarity principle, both central to the revolution in physical theory in the first three decades of the twentieth century, were central also to the revolution in social theory instigated by Marx over half a century earlier. Of course, one must be careful in drawing methodological comparisons between a positivist-oriented physical science and a meaning-oriented social theory. But in any case, the long-standing debate regarding the status of meaning and explanation in social theory *vis-a-vis* natural science (Outhwaite, 1987) - the question as to whether social inquiry should in this respect be considered *sui generis* - seems to pass proponents of AM by.

One should not object to calls for a more 'analytical' Marxism, if by this is meant a search for greater clarity in presentation and rigour of argumentation whenever it is felt that these are somehow lacking in the original (Wright *et al*, 1992). One can also agree with Elster that such a search should make use of all relevant materials, whatever their source (Elster, 1982:453). But then it is by no means clear that purging Marxism of the argumentative figures outlined in Hegel's *Logic* is consistent with either of these aims (chapter 3 below). In any case, strategies which seek to reduce complex social phenomena to the (posited) properties of individual agents *and* their interaction (Elster, 1986:23), which itself suggests a certain confusion (Arthur, 1988), make no sense when, as in Marx, economic agency is itself made the object of inquiry. Here, Amariglio and Callari (1989) pick up the shift in problematic that differentiates the bourgeois and Marxian projects; Roemer (1988:176; 1989:378) clearly does not.

This last point takes us to the heart of the matter. Ultimately, the question as to whether Marx's project is ripe for a fully reductive or methodological-individualist reformulation is not at bottom a methodological issue. A mere shift in 'methodology' suggests a commonality of purpose, a commonly agreed object of inquiry, pursued by other means. But, with regard to Marx's value theory in particular, there is no commonality of purpose. In reducing Marx's project to one wholly concerned with questions of justice and material well-being, AM reduces Marxism to political economy - and in the process brings to bear not just bourgeois 'tools' of analysis (Roemer, 1988, p.vii) but a bourgeois sensibility to boot. Ironically, it is precisely in failing to problematise this sensibility that AM pulls up some way short of the kind of 'full reduction' with which Marx himself would feel comfortable. Emerging in and through Marx's value-deliberations is the idea that the 'simple' commodity-producing economy, the 'natural habitat' of value, as Dixon and Kay, (1995:510) ironically put it, is not some virtual-world or model which must then be given a (mal-)distributional twist for it to become of critical worth. Rather, for Marx, value is itself a site of deformation, of sickness, and its phenomenal forms a sign that all is not well (cf. Smith, 1997). Despite appearances, 'simple' commodity-producers are oriented towards the production of money rather than useful artefacts, and, as I will want to argue in the next chapter, these are by no means equivalent enterprises.

3. FROM COMMODITY TO VALUE

3.1 Introduction

Despite the contempt it otherwise shows for 'orthodox' Marxist-economic styles of argumentation, at least in regard to the archtectonics of Marx's value theory, AM seems at one with the standard approach, according to which Marx closes in on his model of capitalist reality *via* a sequence of commodity-producing but non-capitalist approximations, each one in principle sustainable, perhaps even historically instantiated (Sweezy, 1968; Morishima and Catephores, 1978; Mandel, 1990). Marx's reason for adopting such a procedure, or so it goes, is to somehow compare and contrast the juridical properties of these various models, and, more particularly, to show that the essentially non-exploitative character of simple commodity-production is subverted as soon as a market in labour-power is introduced. Of course, in acceding to the orthodox reading in this respect, AM has its own agenda. For having established Marx's agenda behind Marx's own back, so to say, AM theorists then feel at liberty to substitute their preferred method *for what is taken to be* Marx's method in order to better substantiate *what is taken to be* Marx's conclusion. Thus Roemer writes in his self-styled 'introduction to Marxist economic philosophy': "...the labor theory of value, so important in the classic Marxist account, is unimportant here, for it contributes nothing to our understanding and, even when most charitably interpreted, is at best misleading. It is, indeed, a secondary purpose of this book to show that the conclusions of Marxist analysis do not depend at all on the labor theory of value" (1988, p.vii). The AM strategy here adds a whole new dimension to Barthes (1979) claims regarding the demise of authorial *imprimatur*: Marx's approach is to be rejected, it seems, because it (allegedly) fails to do what others say it is trying to do.

In regard to his discourse on commodity- and value-forms, what was Marx trying to do, and how? To begin, one may say this: the texts lend no support to the orthodox 'virtual realities' view. On the contrary, as far as one can see Marx's various 'models' of commodity-production are each concerned with the *same* reality - each one in the

sequence giving a less abstract, or more concrete, characterisation of how things are. In building up to an adequate characterisation of modernity by showing the insufficiency of his more abstract formulations, Marx follows Hegel's *Logic* in tracing a path which leads from being to essence and, thence, to concept. Put briefly, one may say that *essence* is the principle which *being* instantiates, and that *concept* is the process whereby the principle is itself maintained. Concept is thus a richer formulation in at least two senses: first, it may introduce determinations which (though implicit) are missing from earlier phases of the argumentation; but, second, concept is also a recapitulation of those earlier phases, because showing 'maintenance' entails (*inter alia*) an explanation as to how essence is instantiated in being, and why. Concept is thus both advance *and* return journey. As will become clear below, it is because concept involves a doubling of function that Marx's appropriation of Hegel's systematic dialectic cannot be considered a straightforward one. Indeed, perhaps no application of his logic-doctrine is as straightforward as Hegel would have us believe. But, in any case, and *pace* Arthur (1993) and Smith (1993), who read Hegel into Marx as commodity (being)-value (essence)-capital (concept), I will want to treat the dialectic of commodity and value as constituting and completing in itself an Hegelian argumentative figure. The remainder of this chapter is concerned with the first phase of this figure: the (conceptual) advance from commodity to value - the 'being-essence' problem, so to say. Chapter 4 below will then complete the figure by moving from value (essence) to value-form (concept). Of course, the 'completion' realised therein is a strictly relative one, since the completed concept of value-form is itself insufficient and requires grounding. The grounding of value, however, entails a further argumentative cycle, which is dealt with in chapter 5.

3.2 Intrinsic Value

Being in modernity appears as a 'vast accumulation of commodities' and, as such, it is with the commodity-form that its analysis must begin (Marx, 1974a:43). But at which level of abstraction? At least two possibilities present themselves. One would be to represent this 'accumulation' in determinate form: as elements of capital, labour-power, landed property and their revenues. This, of course, is the classical-Ricardian way: "...in

order to carry out [his] investigation...[Ricardo] postulates the whole of capitalist production and his entire conception of the relationship between wages and profit". Indeed, in the first chapter of the *Principles*, "...not only are commodities assumed to exist...but also wages, capital, profit, the general rate of profit and even...the various forms of capital as they arise from the process of circulation" (1969b:168). As Marx notes, however, although Ricardo's method is so often criticised as being too formal, too abstract, the opposite would seem to be the case; for 'when considering value as such', one need only assume commodities: 'nothing further is required' (*op. cit.*). For Marx, then, Ricardo's approach is not abstract enough.

On the other hand, to 'assume commodities' *as they appear* - as bearers of exchange-value - is much too thin. What *appears* as the commodity-form of the product is by no means the *differentia specifica* of modern economy, finding its way as it does 'into the pores' of, or indeed acting as a means of interchange between, earlier 'communal' formations (1974a:83; 1973:103). What does distinguish pre-modern from modern economy, however, is the ubiquity of the commodity-form; for, whereas (properly) commercial exchange takes place only at the 'margins' of the former (and, as in the case of the (idealised) classical *polis*, to be carried on only by non-citizens), it appears in bourgeois economy as its 'original, constituent element' (1973:103). Thus, what may *appear* to the modern eye as commodity-form may turn out to be nothing of the kind. It is a question of principle, motive or ground: the *why* of exchange-value, so to say. Marx's commodity-form, then, is more than a mere conjugate of use-value and exchange-value. It 'does no harm' to refer to it as such, as and when no confusion arises; but *strictu sensu*, and in regard to its extra-material aspect, it is in fact a 'value' (1974a: 66; see also Marx, 1974a:78; Williams, 1998:193).

To say that a commodity is a value is to identify (one of) its constituent properties or definitive characteristics. To say as much is thus also to distinguish the commodity proper from the pseudo-commodity, just as 'word' is used to distinguish mere utterances from those whose meaning is constituted by and through language. Commodities are exchange-values which *in addition* have the value-property in the same way that words

are utterances which in addition have the language-property. Or again, one may say that commodity is to value as object is to weight (Marx, 1974a:63; see also Marx, 1972:143 and 160-161): value gives meaning to commodity just as object is given meaning by weight. Following Marx, however, Arthur considers that the value-weight analogy has only limited application for "...unlike weight, value has no connection with anything inherent to the commodity itself as a natural body.....it [therefore] does not seem possible to argue that value exists independently of exchange in the same sense as weight exists independently of weighings" (1993:77; see also Hong, 2000:88). But, in fact, the commodity-value and object-weight relations are exactly analogous. Materiality is not an issue here. Value is as 'natural' a property of the commodity as is the weight of an object, and just as real: value serves to distinguish commodities from other forms of exchange-value in just the way that the property of weight serves to distinguish (along with other characteristics) objectivity from other forms of being. And does 'weight exist independently of weighings'? So to say is to confuse what Taylor (1995:133-134) calls plain- and meaning-events. To be sure, value is constituted through, gets its meaning from, repeated exchanges of a certain form; but weight is analogously constituted, *viz*, through repeated 'weighings'. To return to the earlier analogy, value is a kind of language and, so to speak, conditions the possibility of the individual commodity as such.

But to say that commodities speak the language of value is not to say that other exchange-values speak no language at all. Aristotle's 'traditional' exchange-values speak the language of (*polis*-mediated) need. Commercially constituted exchanges speak the language of 'money'. In his time the *polis* is effectively bi-lingual, so to say, but Aristotle is at pains to show how the former may eventually be undone by the latter (Meikle:1995). But although there is an obvious similarity here with the distinction Marx draws between the circuits C-M-C' and M-C-M', Marx's concern is not with contrasting two actually existing forms of exchange: one need-oriented and the other driven by money. Rather Marx's interest lies in the possible confusion of the two, and the vulgar misrepresentation of the latter as the former.

Related to this last point, Marx is also concerned to show that the value-language is not

'our' language; that the 'value'-language is the subversion of properly human values. What Marx means in regard to 'properly human' is dealt with more fully in chapters 7 and 8 below. Suffice it to say here, however, that *pace* Adam Smith and his successors, for Marx a form of social order which establishes itself 'behind the backs' of ostensibly autonomous agents cannot be properly human after all; nor should such agents be considered as properly autonomous. Of course, in all actually-existing forms of bourgeois economy, social order is in fact constituted 'behind the backs' of participants. But the Marxian question is: does this have to be the case? Is social order in bourgeois economy *of necessity* constituted 'behind the backs' of agents? Interestingly enough, this question connects in a natural way with the (mis)representational problem alluded to above. As I will want to show below, social order constituted through money-oriented exchange cannot help but be constituted 'behind the backs' of participants.

3.3 Value-Modernity as Second Nature

As Marx was well aware (1973:83), these questions are central to the self-interpretation, to the philosophical conscience, of modernity. For Smithians, of course, money-oriented exchange, however constituted and whatever its outcomes, is freedom precisely because it gives vent to man's 'natural propensity to barter and truck' (Smith:1986; Marx,1973:161-162). For those positions which rest on more nuanced, more complex anthropologies, however, issues to do with the *telos* of exchange and how it is understood by participants are not to be brushed aside so easily. For a modernity which sees itself as a self-conscious break with the past, as consisting in the capacity to self-consciously re-make or re-mould the present in conformity with reason, it is precisely these kind of questions which do matter. It matters little for present purposes whether this 'reason' is supposed to be realised monologically - either through 'method' (Descartes) or as a thoroughly self-legislating thought (Kant) - or dialogically, as constituted by and reflected in social practice and institution (Hegel). The point here is that, as against a traditional form of individuality grounded in and through some mystically constituted social order, modern individuality is seen as that of the

autonomous individual: axiomatically self-transparent and self-grounding.

For Marx, however, such a self-understanding is self-delusion: the bourgeois form of individuality is neither self-transparent nor self-grounding. For sure, it may be constituted differently, in the sense that the individual is now "...detached from the natural bonds, *etc.*, which in earlier historical periods make him the accessory of a definite and limited human conglomerate"(1973:83). No more the situation in which individuals "...enter into connection with one another only as individuals imprisoned within a certain definition, as feudal lord and vassal, landlord and serf, *etc.*, ..as members of a caste..or estate". In bourgeois society "...ties of personal dependence, of distinctions of blood, education.. are.. exploded..ripped up.. and individuals *seem* independent...free to collide with one another and to engage in exchange within this freedom" (*op. cit.* pp.164-165). In this way pre-modern hierarchy and differentiation turn into the kind of equality and freedom which characterises modernity. Instead of economy dispensed *via* an extensive and rigid complex of tradition-based rules, one has in bourgeois society a network of personal dependencies and a rhythm of life which seemingly grow from individually determined needs and aspirations, which seemingly "...arise from the conscious will and particular purposes of individuals" (*ibid* p.196). In place, then, of the subordination of the individual, of his 'will and purposes', to an extensive definition of community, in bourgeois society the boundary of the community as an operationally significant category is apparently redrawn around the individual. Modernity thus promises the individual *qua* community and, in so doing, individuality *per se*.

But, according to Marx, this is a promissory note that modernity cannot hope to cash out, for, in any case "...the human being is in the most literal sense a political animal...not merely gregarious..but [one] which can individuate itself only in the midst of society" (1973:84); and the bourgeois is no exception to this general rule. What modernity delivers in fact is a subject position described by Marx as 'isolated individuality', a position from which the "...various forms of social connectedness confront the individual as a mere means towards his private purposes, as external necessity" (*ibid*; see also Marx, 1977a:73). In this way one form of ritual is replaced by another. Freedom from

'traditionally' determined forms of personal dependency expresses itself in the commodity-economy as the restriction to the specific type of dependency which is constituted by and is capable of reproducing impersonality - an inter-personal dependency masquerading as a relation between things (1974a: 76-77). Indeed, that the "...social relation of individuals to one another...[stands]...as a power over individuals...has become autonomous, whether conceived as natural force, as chance or in whatever other form, is a necessary result of the fact that the point of departure is *not* the free social individual" (1973:197; my emphasis).

For Marx, then, in the process of exposing the 'traditional' form of reification - whereby humanly constituted modes of inter-subjectivity are treated by participants as somehow God-given, or natural - Enlightenment thinking and practice sanctions its replacement by another, more insidious, secular form of naturalism. Bourgeois economy consists in a network of conditioned or stylised responses which together comprise a procedure not well-understood by those taking part. It is an elaborate *de facto* procedure for the disposition of social activity, though this is neither the intention nor understanding of participants (see Hong, 2000:100). It assumes the form of a second nature, and, as Marx notes, "...circulation, as the first totality among the economic categories, is well-suited to bring this to light" (1973:197).

What an examination of circulation is 'well-suited to bring to light', then, is that commodity-exchange follows its own logic rather than that of human need; in other words, that commodity-exchange is value- rather than need-oriented; or again, that the circuit C-M-C' is but an illusory form of the circuit M-C-M'. Marx's own exposition, however, is defective in the following respect. According to Marx (1974a), C-M-C' is incoherent because it raises within itself the possibility of crisis (Kenway, 1980), the possibility that a desired purchase may not be matched at any one time by a corresponding sale. In order to meet this contingency, then, the commodity-producer cannot help but be 'money'-oriented. But in thus introducing mere possibility as a means of driving his exposition forward, Marx departs from his presentation-developmental logic of deriving more complex-concrete conceptions out of the *necessary* inadequacies

of earlier ones. As Marx himself admits elsewhere (1973:160-161), though the possibility, and indeed the actuality, of commodity-crisis is empirically verifiable, he cannot establish it as a necessary feature of bourgeois economy: indeed, with improvements in the information of - and the means of communication between - participants, the (alternative) possibility exists of 'suspending this old standpoint' (*op. cit.*). As I will want to argue in the next chapter (4 below), the problem here which besets Marx's derivation of 'money'-oriented (though, properly speaking, value-oriented) behaviour is essentially the same problem which arises in respect of his derivation of the money-object itself.

For the remainder of this chapter, however, I will be concerned to show the necessity of value-orientation in a commodity-economy, *vis*, that C-M-C' is a *necessarily* incoherent account of commodity-exchange. To do so one must indeed 'suspend the old standpoint', that is to say, rule out the possibility of crisis. To this end the circuits C-M-C' and M-C-M' are re-presented as a pair of Walras equilibria for which, by definition, the subjective (as well as objective) probabilities associated with crisis-states are zero. As it turns out, the two equilibrium configurations differ only in respect of the way in which commodity-prices are assigned.

3.4 Configuration 1: C-M-C'

The Walrasian story is one of a pooling, valuation and redistribution of property carried out in such a fashion that each individual takes whatever he/she likes from the pool, though on the understanding that no-one appropriates a commodity-bundle of greater value than that deposited by him/her in the first place. Clearly, such a redistribution is feasible only if the composition of the pool is in accord with the demands made upon it, and this in turn depends upon prices. It thus seems as though the agreement is that prices are chosen so as to ensure such a feasibility. In any case, this is how the story is usually told.

More precisely, suppose there to be a set T of transactors, each of whom is allotted an n -

dimensional net commodity requirement or excess demand, $z(t)$, from a set comprising the best of those available to her, $Z(t, p)$, at an n -dimensional price list, p . Now, the only systemic restriction on Z is the solvency requirement $p z(\cdot) = 0$. In particular, the determination of Z in itself takes no account of the need to ensure a system-wide consistency of commodity-plans. On the contrary, it is taken to be a virtue of the system that the problem of co-ordinating individual plans is here shifted to a different level of determination: the level of price-determination; and it is clear that to solve the co-ordination-problem it is both necessary and sufficient for p to be such that, for all t

$$(3.4.1) \quad z(t) \in Z(t, p)$$

and

$$(3.4.2) \quad \sum_T z(t) = 0.$$

Denoting as z the T -tuple of excess demands, any z that satisfies (3.4.1) and (3.4.2) is known as a *Walras allocation*, and the pair (p, z) , as a *Walras (or general) equilibrium* (GE).

Now it is certainly sufficient that prices are so chosen that (3.4.1) and (3.4.2) are satisfied. But, according to the standard interpretation of the Walras system, it is also *necessary* to co-ordinate plans that agents agree to so choose prices, that is, to choose prices so as to ensure an economy-wide balance in commodity requirements. Indeed, even critics, though objecting to the strategy of finessing the price-formation problem to one of explicit agreement among transactors, do not demur from a reading that sees this price-agreement as centred on the correspondence between prices and excess demand. So Walsh and Gramm write that "... post-Walrasian theory finesses the problem by appealing to the concept of an auctioneer whose function is to 'cry out' prices to register excess demands...and then to adjust prices in such way as to remove the excess demand" (1980:407).

In relation to Marx's value theory the implications of GE theory, standardly interpreted, seem to be clear enough. Walras equilibrium seems to entail that there is some prior commitment on the part of transactors to value commodities so as to ensure an economy-wide balance in commodity requirements. Proceedings seem to make no sense otherwise and, as a consequence, such an agreement appears intrinsic to the equilibrium account of the circulation process. Expressed in this way, then, GE theory challenges Marx's characterisation of commodity-economic doings, not so much over the level of social order which is supposed to be engendered (because in GE theory, many of the features which account for commodity-economic order are just *supposed*), but, rather, over the extent to which participants are minded to do the things that they do because they are minded to promote order. Against Marx's vision of elaborate ritual, where the individual is part of an orderly process but does not realise it, GE theory seems to be saying that (idealised) commodity exchange is an orderly process precisely because that is how participants would understand, and choose, it to be.

3.5 Configuration 2: M-C-M'

As Binmore (1991) notes, the GE theorisation of commodity-economic activity is clearly underpinned by some kind of common knowledge postulate. But common knowledge of what? What kind of agreement in regard to price assignment do Walrasian transactors make? According to the usual understanding outlined above - one which lends credence to a need-oriented interpretation of commodity-economic activity - it is as if Walrasian agents agree to transact only at market-clearing prices, and criticism of the approach has naturally focused upon the prodigious informational and computational capacities which such a scenario seems to require (Radner, 1968). But scant attention has been paid as to why, given the capacity for so doing, agents would want to make such an agreement. The idea that participants come to some agreement, tacit or otherwise, to price commodities so as to ensure an economy-wide balance in requirements comes very close to being incoherent, seemingly incompatible with the description of individuality GE theorising otherwise entertains. As isolated individual, my interest is surely in *my* (narrowly defined) need, not in the needs of others, nor in situations in which social need and

capacity are reconciled. On the other hand, how else does the balance in commodity requirements arise, if not by prior arrangement?

Interestingly enough, in a seminal paper in the GE tradition, Arrow and Debreu (1954) offer a rather different take on what a Walras equilibrium state requires in terms of transactors' intentions. In sections 2 and 3.1.1 of that paper they formulate a game-theoretic analogue to the standard account. Though of identical reduced-form structure to our configuration 1, (indeed both result in (identical) Nash equilibria) this so-called *abstract-economy* game has a quite different behavioural specification. In particular, the notion of an economy-wide consistency of commodity-requirement plans, used explicitly in the standard interpretation of GE to explain price assignment (see Debreu, 1959, p.vii and p.74), and which is in any case part of the standard description of a Walras equilibrium, plays no role in the specification of an abstract economy whatsoever. Instead, a price list is chosen from an appropriately-defined subset of the reals, say

$$P = \{ q \text{ such that } \sum_I | | q (i) | | = 1 \}$$

where I indexes the commodity space, so as to maximise the value of total net commodity requirements. More precisely, the pay-off function which here determines the choice of price list takes the form:

$$p \rightarrow \text{Max} \{ P \sum_T z (t) \}.$$

Solution states are thus defined by the conditions:

$$(3.5.1) \quad z (t) \in Z (t , p), \text{ for every } t \in T,$$

and

$$(3.5.2) \quad p \in P \text{ such that } p \sum_T z (t) = \text{Max} \{ P \sum_T z (t) \}.$$

As it turns out, the two configurations are structurally equivalent in the sense that equilibrium points of the abstract economy have all the properties of Walras equilibrium, and vice versa. The proof is straightforward.

Consider first the idea that the solutions, say, $\{(p, z)\}$, to system 3.5 also satisfy system 3.4. If not, then for some (p, z) one has $\sum_T z(t, i) \neq 0$, and it is then possible to find a $q \in P$ such that $q \sum_T z(t) > 0$. Indeed such a q may be constructed in the following way. Denote as I^* those commodities with non-zero excess demands. Then for $i \in I^*$ let $\text{sign}[q(i)] = \text{sign}[\sum_T z(t, i)]$ and $\sum_{I^*} q(i) = 1$. If $i \notin I^*$, set $q(i) = 0$. Now $q \sum_T z(t) > 0$ by construction. But by definition $p \sum_T z(t) \geq q \sum_T z(t)$, giving $p \sum_T z(t) > 0$.

On the other hand, one has $z(t) \in Z(t, p)$ for all t , which by construction gives $p z(t) \leq 0$, all t . One therefore has $p \sum_T z(t) \leq 0$ and a contradiction.

Equilibrium points of the abstract economy thus turn out to be Walras equilibria in another guise. But perhaps these are not the only Walras equilibria available. The following argument, however, says otherwise. For if there were, one would then be able to find a $q \in P$ such that $z(t) \in Z(t, p)$ for all t and also $\sum_T z(t) = 0$, but with $q \sum_T z(t) < \text{Max}\{P \sum_T z(t)\}$. Clearly $\sum_T z(t) = 0 \Rightarrow q \sum_T z(t) = 0$.

But then for some p ,

$$q \sum_T z(t) < p \sum_T z(t) \Rightarrow p \sum_T z(t) \neq 0,$$

contradicting $\sum_T z(t) = 0$.

3.6 The Auctioneer's Tale Retold

According to the above, then, the existence of a value-maximising price list serves as a necessary and sufficient statistic for the existence of Walras equilibrium. Configurations 1 and 2 are mathematically equivalent formulations. They are not social-theoretic equivalents, however. According to the first, transactors agree to a price structure that

ensures a coherence of plans expressed in excess demands; whereas in the second, the agreement is to cash in on social shortage. I will want to say more about this below. For the moment, though, one should note that even the mathematical equivalence is an artefact of the GE specification, rather than a general feature of the relation between the two kinds of behaviour.

To see this, consider the auctioneer's tale as it should be told: for, *pace* Walsh and Gramm (1980:407), the auctioneer's brief is to realise the highest sales-price for the client, not to manipulate price so as to 'remove excess demand'. Nevertheless, so the argument presumably runs, does not a commitment to the maximum sales-price objective necessarily entail a *de facto* commitment to 'clearing the market'?

To see that it does not, consider the following case in which one has (in intuitive notation): a supply $s = 1$, an auction price $p \in \mathbb{R}$, and a total demand (in integers) such that $d(p) > 1$ for $p \leq 1$ and $d(p) = 0$ for $p > 1$. Now, the maximum sales price problem, *viz*, choose p such that

$$p s = \text{Max} \{R s\} \text{ and } d(p) \geq 1$$

is solved at $p = 1$. There is, however, no solution to the 'market clearing' problem of choosing p such that $d(p) = s$. In effect, the conventional account of GE conflates the two problems by considering only those situations in which behavioural responses are continuous with respect to price change.

In the sense that both GE theory and the auction-room dispense with trading at disequilibrium prices, it does no harm to invoke devices like *tatonnement* and auctioneers in the description of the machinations of the former. It does a great deal of harm, however, if equilibrium is here taken to mean a commitment to set prices so as eliminate non-zero excess demands, for this is no more the remit of the Walrasian auctioneer than it is of any other. Configurations 1 and 2 are complementary systems in the sense that they share solution states. In the context of commodity-economic relations, however, they are

not equivalent accounts of how those solution states might arise. Indeed, the first configuration, GE theory standardly interpreted, is behaviourally incoherent. For sure, there must be *some* explicit agreement, or some kind of common knowledge assumption, in regard to price assignment, so as to make sense of agents' expectations that *any* budget-feasible choice that one cares to make at prevailing prices can be made effective (that there is no distinction to be drawn between notional and effective demands). It is rather the *nature* of the agreement postulated by the standard interpretation which is incoherent. It surely makes no sense to postulate that agents explicitly, and with full consciousness, agree to prices which ensure the compatibility of economy-wide need, however defined, with total supply, when such a compatibility can be of no legitimate concern to the private, self-interested individuals whose 'will and purposes' the agreement is supposed to reflect. It is as Marx says of Ricardo's formulations: it is as if commodity-production amounts to no more than the 'fulfilling of orders placed by society' (1972:121).

3.7 Concluding Remarks

As Marx notes, "...value..does not stalk about with a label describing what it is" (1974:79). And what value *is*, for Marx, changes according to the level of presentation under scrutiny: here, a sum of money or universal equivalent, there a quanta of abstract general labour. Always, however, what Marx wants to show is that value is *not* as it appears - and as represented by vulgar economy - as a more or less transparent and rational means for the satisfaction of human need in the face of scarcity.

At the most abstract level of presentation - that of circulation - commodities appear to speak a language, entering as they do into systemic relation with one another. And the value-theoretic problem at this level therefore consists in the 'deciphering of this hieroglyphic' (*ibid.*). More particularly, is commodity-exchange merely the modern form - deliberate, transactional and self-transparent - of Aristotle's *economic*, that is to say, a form of simple circulation - a "...means of carrying out a purpose unconnected with circulation, namely, the appropriation of use-values, the satisfaction of wants" ? (1974:150). Or is it Aristotelian *chrematistic* run riot - and, as such, a circulation which

unfolds according to a very different logic? In short, do commodities speak the language of need or of money?

Marx wants to argue the case for the latter, and so doing invokes the possibility of crisis. The very possibility of crisis, he argues, turns money from means into end. To make payments in the event of a shortfall in sales requires the prior accumulation of money balances, and, *ceteris paribus*, more money is always going to be preferred to less. Thus money becomes the purpose of exchange (and implicitly, therefore, of production). But in thus identifying bourgeois economy and its logic with the *ex post* co-ordination of activities, Marx (see also Dobb, 1935:535; Adaman and Devine, 1996) seemingly reduces its rationality deficit to an absence of systemic planning.

In fact, as I have argued above, the veracity of Marx's irrationality thesis does not depend upon whether commodity-owners co-ordinate their activities *ex-ante* or *ex-post*. Freedom from 'traditionally' determined forms of personal dependency expresses itself in the commodity-economy as the restriction to the specific type of dependency which can be organised around and reproduces the principle of impersonality. And even when, as is the case above, commodity-oriented activities are 'regulated in accordance with a settled plan', this 'regulation' by no means takes a 'fully conscious' form; is by no means constituted by 'freely associated men' (Marx, 1974:84). It is, on the contrary, based on a 'silly mysticism' (Marx, 1977a:63). The commodity-economy casts its own spell over participants, constitutes a new form of enchantment. Or as Shapiro (1993:68) puts it, following Foucault (1986), as commodity-subjects "we have learned to resist only one form of sacrilization, the sacred cartography of the Middle Ages". Commodity-subjects are subject to a new form of mystification. For, so soon as social resources are privately appropriated and can then only be redistributed according to *quid pro quo*, of all the alternative dispositions of social activity consistent with the technical configuration of the economy, only those which satisfy a narrow valuation rule are socially feasible. Such a rule, moreover, has nothing ostensibly to do with economic order, thus justifying Marx's appeal to the idea that in the commodity-economy social activity is co-ordinated - whether *ex ante* or *ex post* - 'behind the backs' of participants; regulated as if by blind law

4. FROM VALUE TO MONEY: RESTATING THE QUALITY THEORY OF MONEY

4.1 Introduction

In a world of politically-independent producers who are nevertheless closely dependent upon one another economically, the social character of production expresses itself not as an explicit agreement or convention covering the activities of producers but, rather, as a relation on the total space of products, namely, a value relation. Conversely, in communities where direct association between producers is the norm, neither the simple commodity nor money are seen to play decisive roles. The connection between these two observations - involving as it does the complex genealogy of labour as a form of human activity held to private account, and the relation of this to the development of the commodity- and money-forms of the product - Marx takes to be central to his value-problematic. For Marx the money-form is immanent in the commodity-form, which is in turn immanent in a form of politics that seeks to hold otherwise dependent beings apart. It is indeed this nested conception of immanence-in-labour that gives the Marx value-project its distinctive flavour (see, for example, Reuten, 1995:104). Money for Marx is not a matter of mere subjective convenience in the commodity-economy but rather one of objective, systemic necessity.

On the other hand, as Marx reminds us, making labour the cornerstone of his value theory was not in itself an original idea. He writes: "The recent scientific discovery that the products of labour, so far as they are values, are but material expressions of the human labour spent in their production, marks, indeed, an epoch in the history of the development of the human race (1974a:79). But classical political economy, to whose 'discovery' Marx alludes here, was never able to formulate this notion in a satisfactory manner.

The argument as to whether this or that particular type of labour alone creates value finally resolved itself into the late-classical doctrine that all useful activity (or rather all

value-oriented useful activity) creates value. According to the Ricardian labour theory, to find the value of a commodity one adds the useful activity (or concrete labour) expended by the immediate producer (or on his behalf) to that expended on the various material inputs, to that expended on the material inputs of the material inputs, *etc., etc.* The ratio of any two values is then supposed to determine the approximate rate of exchange between the respective commodities. Now this is all very neat; but different types of concrete labour are not immediately commensurable and so cannot be added together in the way that the Ricardian value-arithmetic seems to require.

To make sense of the classical labour theory, therefore, one has to tell a story the special circumstances of which allow the treatment of disparate activities as though they were commensurable. One could, for example, appeal to an explicit agreement between producers whereby an hour's iron-smelting is taken as the equivalent of so many hour's coal-mining, *etc., etc.* Now the appropriately-weighted concrete labours can be added together, but only because the story postulates a form of labour that is immediately or directly social thus giving the commodity and money no real work to do. So it comes as no surprise to find that when money surfaces in classical theory, it is either as a claim on a predetermined portion of the social output - which, as Marx dryly observes, "... is no more 'money' than a ticket for the theatre" (1974a:97) - or as a device to overcome difficulties arising from the barter of occasional surpluses between communities. In neither case is the conception of money in any way bound up with the regulation of activities within the community (see Marx, 1971:50-51;1973:116-170).

Like the classical masters before him, for Marx all forms of activity, including that which appears as private, are taken to be essentially social. On the other hand, labour as initiated by private decision cannot be directly social, as the classical presentation seems to imply. One is therefore obliged to formulate a convincing sequence of mediations that establishes its sociality, and this is exactly what Marx sets out to do. The sequence runs, first, from labour to the commodity, and then from the simple commodity (through a series of intermediate determinations) to money. Money finally surfaces as the independent value-form of the commodity, 'crystallising out' of the exchange process as a

matter of necessity rather than convenience (Marx, 1974a:90; see also Hong, 2000:93).

My discussion below is concerned with why for Marx money is supposed to 'crystallise out of exchange'. In the next section (4.2), the concepts of use-value and exchange-value, central to Marx's treatment, are formalised in such a way that the tension between the two can be drawn out with a greater precision than is usual. The tension is shown to be such that, without some independent form of value, sustaining an otherwise viable (value-relative) pattern of transactions becomes problematic.

But mediation does not have to mean money, as I explain in 4.3 below. It is therefore necessary to find additional arguments to account for the money-form, and Marx finds his in the private character of labour. Basically, Marx argues that money is required because labour, being a privately initiated form of activity, can never be considered socially useful *a priori*. This is undoubtedly the case; but as I will want to argue in 4.4, the real problem is that, without money, labour would not even try to be socially useful. A concluding section (4.5) then draws together the various themes.

4.2 The Dialectic of the Commodity-Form

In so many reformulations of Marx's economics, the notion of reproducibility assumes a key role. It does so, for example, in Morishima (1973), in Walsh and Gramm (1980), in Roemer (1981), in Dixon and Kay (1995) and, again, in Williams (1992 and 1998:190). Roemer's approach is particularly interesting, for as he correctly points out, "...the Marxian notion of reproduction means that the system should create institutions and ideology that enable it to continue existing" (1981:19). But how to model such a complex idea? For Roemer it comes down to "... the simple economic prerequisite that the economy should not operate in such a way as to run down some necessary stock to zero, in which case further production would be impossible" (*op. cit.*).

Reproduction is a central theme in Marx, but Roemer's resource arithmetic surely misses the point (note: points: activity uncritically treated as resource): not all economies have to

reproduce themselves through a sequence of private, bilateral transactions. Under these circumstances the product becomes a commodity and so acquires a social meaning in addition to its usual technical function. The problem is that the technical and social aspects of the commodity may not be immediately compatible.

The Use Relation

To fix ideas, consider a finite set $T = \{1, \dots, t, \dots, m\}$ of transactors, a product space $S \subset \mathbb{R}^n$, indexed $I = \{1, \dots, i, \dots, n\}$, and an assignment or programme $z : T \rightarrow S$ giving the net product demands of each transactor. (Negative components in the lists are therefore interpreted as outputs or supplies.) Consider, also, the requirements that a programme must satisfy to make basic economic sense.

On the one hand, prevailing technology, by placing restrictions on the representative transactor's activity, limits his possible product demands to a proper subset $Z(t)$ of the product space. One therefore requires that

$$(4.2.1) \quad z(t) \in Z(t), \text{ for all } t \in T.$$

But product demands have to be socially coherent too, meaning, first, that

$$(4.2.2) \quad \sum_{t \in T} z(t) = 0$$

and, second, that one is able to find a function d from $T \times T$ to $S \subset \mathbb{R}^n$ such that for all $t \in T$

$$(4.2.3) \quad (i) \quad \sum_{t' \in T \setminus t} d(t, t') = z(t)$$

$$(ii) \quad d(t, t) = 0$$

$$(iii) \quad d(t, t') = -d(t', t)$$

The function d effectively disaggregates transactors' net demands or product requirements, showing who gets what from whom: thus $d(t, t')$ gives the list of net demands for the various products which transactor t makes on transactor t' . Condition 4.2.3(i) states that for any transactor her net demands on others must add up to her total requirements (ie. to $z(\cdot)$). 4.2.3(ii) and 4.2.3(iii) then simply make explicit what is implicit in 4.2.3(i): that d is *net* of what one might demand of oneself; and that one transactor's net demand on another may be looked at as a net supply of identical magnitudes by that other agent.

For the special case $S = \mathbb{R}^n$, and given a z satisfying (4.2.2), there is no difficulty in finding such a function. (Essentially, (4.2.3) given (4.2.2) constitutes a system of n linear (scalar) equations in $m/2 \cdot (m-1) \cdot n$ variables). In this special case, any programme satisfying (4.2.2) is bound to work at the micro-level. But $S = \mathbb{R}^n$ implies that any product bundle can be split arbitrarily, which is most unlikely.

In any case, these basic considerations set up a relation on the product space (or, more precisely, between its m -fold and $[m \cdot m]$ -fold Cartesian products) as follows. Let

$U(z) := \{ d \text{ having properties (4.2.3) above} \}$ for z satisfying (4.2.1) and (4.2.2), and

$U(z) := \emptyset$ otherwise.

I shall call this the use relation and, given a programme z , the set of functions $U(z)$ its use structure. The use relation, concerned as it is with an essentially technical description of economic relations, tries to capture in a more precise way what Marx refers to as the “.. material interchange between man and nature, quite independent of the form of society” (1971:36).

The Value Relation

Considered in this socially-abstract way, an economy makes sense only if it has a non-empty use structure - the various distributions in $U(\cdot)$ describing exactly how, at the micro, inter-transactor level, a macro-feasible pattern of net product demands can be made to work. However, in a commodity-producing economy, a distribution has to make a particular kind of sense for the individual. To be more explicit, a *commercial* transaction carries with it the idea that when I help to satisfy your net product demand you give me something in return. One should note that nothing in the above definition of a feasible use structure requires that this be so.

The idea of a commercially-driven transaction structure is not easy idea to formulate in a precise and yet general way, essentially because the value principle is itself expressed in different ways in different societies (and, indeed, in different ways in the same society at different stages of development). Nevertheless, a minimal requirement is surely that commercially-driven bilateral transactions exhibit a certain *quid pro quo*. Accordingly, I define a value relation V between $R^{n,m}$ and $R^{n,m}$ as follows:

$$V(z) := \{ d \text{ in } U(z) \mid d(i, t, t') > 0 \Rightarrow d(j, t, t') < 0, i \text{ and some } j \in I, i \neq j \}$$

I shall call the image of z with respect to the relation V its *value structure*. In effect, a value structure is a use structure which satisfies the additional requirement that the interaction of agents *considered pair-wise* will always exhibit a two-way flow of products, assuming of course that there is any flow between them at all: if, for example, t gets something from t' , then t' must reciprocate in some way.

The Primitive Value Relation

Because each value structure is a (typically proper) subset of some use structure, a non-empty use structure is no guarantee that an economy will be capable of sustaining itself through commodity exchange. One would think, however, that the technical and social

aspects of the commodity are more easily reconciled when the value structures more closely reflect feasible patterns of use. A natural way of formalising this idea is to require that the value relation satisfy, for $i \in I$, $t \in T$ and $t' \in T \setminus t$,

$$\text{sign} [d(i, t, t')] = \text{sign} [z(i, t)]$$

or else

$$d(i, t, t') = 0.$$

The above condition, requiring as it does that the direction of an agent's transactions in any one commodity always follows the sign of her total net demand in that commodity, seems innocuous enough. It means, for example, that if I have a positive net demand for apples then my appearance as a transactor is always as a buyer. But this rules out the possibility of agents obtaining their requirements via intermediation; and for that reason it is then easy to find examples where one has

$$U(z) \neq \emptyset \text{ and yet } V(z) = \emptyset.$$

For this reason I shall call value relations with the above property *primitive*: so many economies with otherwise workable characteristics are unable to function through such a value relation.

Simple examples, though, fail to convey the generality of the problem. Call an economy *specialised* if, for some pair of transactors, say, r and s , and for some commodity, say, k , one has

$$z(k, r) > 0 \text{ and } z(k, t) = 0 \text{ for all } t \in T \setminus \{r, s\}$$

which says that transactor r has a positive net demand for product k , a product not supplied by any transactor other than transactor s , and

$z(i, r) \geq 0$ for all i such that $z(i, s) > 0$.

which says that transactor r cannot help to satisfy any of the positive net product demands of transactor s .

This requirement is fairly weak. But it is immediate that no primitive value structure exists for an economy if it is specialised in the above sense.

Suppose not. Then one can find a distribution, say, d^* , that satisfies

$$(4.2.1) \quad z(t) \in Z(t), \text{ all } t$$

$$(4.2.2) \quad \sum_T z(t) = 0, \text{ all } t$$

$$(4.2.3) \quad (i) \sum_{t' \in \text{in } T \setminus t} d^*(t, t') = z(t), \text{ all } t$$

$$(ii) d^*(t, t) = 0, \text{ all } t$$

$$(iii) d^*(t, t') = -d^*(t', t)$$

$$(4.2.4) \quad d^*(i, t, t') > 0 \Rightarrow d(j, t, t') < 0, \text{ for some } j \in I, i \neq j$$

$$(4.2.5) \quad \text{sign}[d^*(i, t, t')] = \text{sign}[z(i, t)] \text{ or else } d^*(i, t, t') = 0,$$

for $i \in I, t$ and $t' \in T$

Recall, also, that because the economy is specialised, there are transactors r and s and a commodity k such that

$$(4.2.6) \quad (i) z(k, r) > 0 \text{ and } z(k, t) = 0 \text{ for all } t \in T \setminus \{r, s\}$$

$$(ii) z(i, r) \geq 0 \text{ for all } i \in I \text{ such that } z(i, s) > 0.$$

Consider first the net product demands of transactor r and, in particular, the fact that, by (4.2.6), $z(k, r) > 0$. According to (4.2.3), $\sum_{t' \in T \setminus r} d^*(k, r, t') > 0$ and also $d^*(k, r, t') = -d^*(k, t', r)$ for all $t' \in T \setminus r$. But, by (4.2.6), $z(k, t) = 0$ for all t in $T \setminus \{r, s\}$, which, by (4.2.5), $\Rightarrow -d^*(k, t', r) = 0$ for all $t' \in T \setminus \{r, s\}$ and so, also, $d^*(k, r, t') = 0$ for all $t' \in T \setminus \{r, s\}$. Thus one has $d^*(k, r, s) > 0$ and, according to (4.2.4), $d^*(i, r, s) < 0$ for some $i \neq k$.

On the other hand, according to (4.2.6) one has $z(i, r) \geq 0$ for all i such that $z(i, s) > 0$, and so, by (4.2.5), $d^*(i, \cdot) \geq 0$ for those commodities also. Call this subset of commodities J . Certainly one would therefore have $d^*(i, r, s) \geq 0$ for $i \in J$. Now consider $I \setminus J$. For those commodities, from (4.2.6), $z(i, s) \leq 0$, which, by (4.2.5), gives $d^*(i, s) \leq 0$. Condition (4.2.3) then requires $d^*(\cdot, s) > 0$ for $i \in I \setminus J$ and, in particular, $d^*(i, r, s) \geq 0$. One therefore has $d^*(i, r, s) \geq 0$, $i \in J$, and $d^*(i, r, s) \geq 0$, $i \in I \setminus J$. But since $J \cup I \setminus J := I$, one has $d^*(i, r, s) \geq 0$ for all $i \in I$ and, thus, a contradiction.

Circulation

It is not difficult to see why the primitive value relation is so restrictive. The logic of the commodity-form really requires that one is able to substitute for a given basket of products any suitably-proportioned alternative. But how can this be, when each producer is prepared to accept only those commodities for which he has an immediate use?

To overcome what is a potentially terminal difficulty, transactors have to develop a less parochial attitude and so allow commodities to circulate. In the model presented above *circulation* means lifting the sign restrictions in (4.2.5) - thus allowing the individual to act, when appropriate, as both buyer and seller in the same commodity.

The commodity thus achieves general recognition as an essentially social object and, in this way, the conflict between use and value develops a mediation: "...the exchange of

commodities implies contradictory and mutually exclusive conditions. The further development of the commodity does not abolish these contradictions, but rather provides the form within which they have room to move. This is, in general, the way in which real contradictions are resolved" (Marx, 1976:198).

4.3 The Double-Coincidence Dogma

The analysis so far seems to lead in a familiar direction. Unable to make bilateral sense of their requirements, transactors allow commodities to circulate. But some commodities circulate more easily than others: for example, not all products are portable; some are not durable, others indivisible, *etc., etc.* It is those that do have the appropriate qualities, so the story goes, that ultimately surface as money (see, for example, Kiyotaki and Wright, 1993).

This is, of course, fairly typical of the logic underpinning the classical theories of Smith, Ricardo and of many later writers besides - a logic that invokes what is popularly termed the *double coincidence problem* (see, in particular, Jevons, 1875). In Ricardo, for example, where exchange is conceived of as a process which shuffles around *a priori* socially-useful artefacts produced by immediately social activities, the existence of the double coincidence problem and money become synonymous. But, as Brunner and Meltzer (1971) point out, the argument only makes sense in the textbook barter economy - one in which transactors can either exchange currently-available product for currently-available product, or not at all. In the more sophisticated barter-credit models of Arrow and Debreu (see, for example, Debreu, 1959) this rationale for money falls away, for, as Goodhart explains: "...person A could sell goods to person B at time t , confident in the knowledge that his claim on goods in return will be met by a transfer from person C at time $t + n$, while B may extinguish his debt by selling services at some other time to some other person" (1975:5). The claim that non-coincidence of itself explains the development of money therefore turns out to be worthless.

In fact, the classical position was effectively compromised long ago. A theory of money

from which one is able to argue that money ought not to exist cannot be taken seriously; but this is exactly what the classical doctrine entails. Arguing consistently from a Ricardian value-theoretic perspective the socialists Gray, Darimon *et al* were able to conclude that conventional monetary arrangements could be replaced by some kind of national bank issuing convertible certificates to producers in proportion to the labour content of their respective commodities. (For a modern survey of these schemes, see Pagano, 1985; or, more specifically, for John Gray's proposals, see Saad-Filho, 1993; the classic reference, though, is still Marx, 1973.) Of course, the so-called *time-chit*, or *labour-money*, programmes could no more be successfully implemented than, say, a complete set of Arrow-Debreu forward markets; but why?

The short answer seems to be that exchange is not as the Ricardian conception would have it: the products of (private) labour are not *a priori* socially useful; nor is the labour that produces them immediately social. On the contrary, commodities must first "... show that they are use-values before they can be realised as values. For the labour spent upon them counts effectively only insofar as it is spent in a form that is useful for others .. [and] whether that labour is useful for others, and its product consequently capable of satisfying the wants of others, can be proved only by the act of exchange". (Marx, 1974a:89; see also Gouveneur, 1990). Accordingly, prices have to be determined in the market-place rather than on the factory-floor - meaning that there is no sure way of calculating the price of a commodity in advance of it being sold.

Marx's observation seems to open the door on money in an obvious way. First, an argument for the existence of a small class of products serving as commodity-money might run in terms of some generally perceived superiority of the price distributions for commodities in that class. (Of course, it is *second-hand* prices that transactors are interested in here.) And the same idea would also explain credit money (that is to say, why some financial commitments are generally acceptable and others not): the worth of a debtor's liability relies ultimately on his continued solvency, which, before his products are sold, cannot be guaranteed. Once again, therefore, it is a question of price distribution - this time explaining the probability distribution of bankruptcy across

transactors, and so why their financial obligations might not be viewed as perfect substitutes.

But there has to be another, and in a certain sense, more basic rationale for the development of money. The concept of an agent's financial liabilities outstripping her ability to pay makes no sense unless trade is organised through a sequence of markets. (So, for example, bankruptcy cannot arise in the Arrow-Debreu economy, unless of course transactors have a problem with their arithmetic.) It follows, therefore, that if price uncertainty and the possibility of bankruptcy appear as the immediate cause of money, then the *sine qua non* is really sequence; and to explain sequence one need look no further than the obvious incentive private producers have to deliberately renege on their commitments (see, for example, Rotheim, 1979, and also Gale, 1982, Chap.6.) Money then surfaces as a substitute for the Arrow-Debreu forward contract, enabling the typical agent to consolidate an otherwise independent sequence of budget constraints.

The next section generalises this argument to include the case where debtors do honour their delivery commitments, but only to the extent that creditors are able to check that this is so. The problem of financial integrity is thus seen as essentially a problem of quality uncertainty - a problem investigated in Akerlof's seminal (1970) paper, and again by Leland (1979). The latter contribution is particularly relevant here because it, like the argument below, treats product quality as endogenous. But neither Akerlof nor Leland attempt to rigorously model the link between quality control and the formation of money, as I do here. What follows should also be seen as an attempt to give some structure to Marx's laconic one-liner that commodities must 'show they are use-values before they can be realised as values'.

4.4 The Quality Theory of Money

It is clear in Rotheim (perhaps less so in Gale) that money is not so much a way of ensuring financial probity as a means imposing some discipline on the otherwise-chaotic

space of private production. Without it, the number of meaningful transactions would typically be reduced - quite probably in some cases to zero. But the pathology that Rotheim describes is by no means confined to the world of the Arrow-Debreu contract: the same problem can arise even when agents insist upon payment in the form of a contemporaneous transfer of products. The Gale-Rotheim point is that the assumption of a value-form based upon forward commitments may be contentious because, if nothing else is said, there is an obvious incentive for debtors not to make the deliveries. But suppose that they invariably do. Then there may still be a problem insofar as the deliveries made might not be appropriate; more precisely, the *quantities* might be appropriate, but not so the *qualities*. The disparity between the real and apparent quality of the typical commodity-product, otherwise exploited by the producer, would then explain the development of a non-typical product for which real and apparent quality coincide. Such an explanation I shall call the *quality theory of money*.

To fix ideas, consider a commodity economy comprising the producer-transactors $T = \{1, 2, 3, \dots, m\}$, each of whom regulates the quality rather than the quantity transacted of a single, unique product. There is in other words a one-to-one correspondence between producer-transactors and commodity-products: products are thus identifiable by their producers, and producers by their products; consequently the indexing set T indexes both commodity-products and agents. In the notation employed below, therefore, the significance of an indexing symbol lies in its coordinate position. Thus, *depending on its coordinate position*, the same indexing symbol or placeholder may at different times denote a commodity-product or a transactor (and here either supplier or recipient, again depending on coordinate position). Think of all quantities transacted as set at unit levels and denote as

$q(r, s, t)$

the quality of product r supplied by agent s to agent t . Alternatively, $q(r, ., .)$ can be interpreted as the fraction of useful material embodied in a unit transaction in product r .

Bearing in mind the above remarks concerning the structure of the coordinate space, the following special situations could arise, and it may be worthwhile at this early stage to clarify these. For example, one interprets

$$q(r, r, t)$$

as the quality of product r supplied by the producer of product r to transactor t . Here, clearly, there is no intermediary. But in the arguments that follow (and contrary to 4.2 above) I do not want to rule out *a priori* the possibility of intermediation. It could happen, therefore, that one has, for example,

$$q(r, s, t), r \neq s \neq t$$

by which I mean the quality of product r supplied by agent s , who is *not* the producer of r to agent t , so-called, because this agent is the producer of product t . It could however happen that one has

$$q(r, s, t), r \neq s, s = t$$

by which I mean that agent s (who is *not* the producer of product r) ‘supplies’ herself in r by retaining, i.e. not retransacting, part of a ‘prior’ supply of r to her. In this case I will write

$$q(r, s, s)$$

A special case arises when not only $s = t$ but also $r = s$, i.e. when one has

$$q(r, s, t), r = s, s = t$$

Here it is as if the producer r supplies product r to herself, that is to say, retains a certain quality q of her own product for her own use. In that case I will write

$q (r, r, r)$

Finally, suppose I want to refer to the following situation; one in which a *specific* producer-transactor is in receipt of a particular commodity-product but which is not her own. To be more explicit, suppose, say, that the producer of product $r-1$ is in receipt of commodity r from some supplier s . Then I will write

$q (r, s, r-1)$

This should be read as the quality of commodity r supplied by agent s to agent $r-1$ (so-called because she is the producer of commodity $r-1$).

Note then that, as in the above cases, when I use the generic placeholders, *viz.* r , s and t (or modifications thereof, for example, $r-1$) ‘out of place’, so to speak, it is to draw attention to a special relation between the product transacted and the supplier (so, in the case of $q (r, r, t)$, commodity r is here being supplied to some recipient t by the producer of commodity r herself) or to a special relation between the product transacted and the recipient (as in the case of $q (r, s, r-1)$, where it would be the case that there is some significance in the fact that the recipient of r (from s) is the producer of commodity $r-1$).

For the sake of simplicity, I assume the following:

$$(4.4.1) \quad 0 \leq q (r, s, t) \leq 1, \text{ all } (r, s, t) \text{ in } T \times T \times T$$

that is to say, the quality transacted is always some fractional amount (or, in the limit cases, zero or one)

$$(4.4.2) \quad \sum_{t \in T} q (r, r, t) = 1, \text{ all } r$$

i.e., in respect of any given commodity, say, r , the total amount of quality outputted into

the economy (or, equivalently, distributed across the space of agents, including herself) by its producer, i.e. transactor r , is always unity.

$$(4.4.3) \quad q(r, s, s) = \sum_{t \in T \setminus s} [q(r, t, s) - q(r, s, t)], \text{ all } r \text{ and } s$$

or, in words, the total quality of r 'transacted' by s to herself (effectively, that amount which she ends up with for her own use) is the difference between what all other agents supply to her and what she supplies to all other agents. Incidentally, 'q' expressions of this form (i.e., in which the second and third coordinates are equal) are significant in so far as they give agents' usages or consumptions of the various commodity-products and so can be expected to motivate their decisions in some (as yet unspecified) way.

Finally, to avoid some tedious circumlocution, I assume

$$(4.4.4) \quad \sum_{t \in T} q(r, s, t) = q(r, r, s), \text{ all } s \in T.$$

i.e., in respect of any given commodity-product, the quality supplied by any intermediary to all other agents (including herself) is equal to the quality supplied to her by that commodity's producer. In other words, (and with no real loss of generality) I will assume that the immediate source of an intermediary's stock of a commodity is always that commodity's producer.

I call a function q having these properties a *quality allocation*, and an allocation *trivial* or *null* if it involves no meaningful interchange whatsoever, that is to say, if

$$q(r, r, r) = 1, \text{ for all } r.$$

In this model, unlike the Arrow-Debreu formulation, there are no forward contracts and so the possibility of contractual non-performance cannot arise (or, rather, cannot arise in quite the same way): a delivery made by a seller is always matched by a contemporaneous delivery by the buyer to the seller. This is not to say, however, that a

transactor always gets exactly what she bargains for. Typically, the agent s makes a *representation* to agent t

$$q^*(r, s, t)$$

as to the quality of product r transacted and it is up to the buyer t to confirm that this is so. There are in general two types of transactor, say, *informed* and *uninformed*: respectively, those that can recognise quality and those that cannot. (Of course, the same transactor can be informed in respect of the quality of some commodities and uninformed in respect of others.) And assume, in particular, that agents recognise the quality of goods that they produce and/or use, but not otherwise.

To be more precise, suppose that the pay-off or utility functions $\{u(r)\}_{r \in T/m}$ are as follows:

$$\text{if both } q(r, r, r) \text{ and } q(r+1, r, r) > 0$$

that is to say, if the consumptions of commodities r and $r+1$ by agent r are both positive, then

$$u(r) = \alpha(r) + q(r, r, r) + q(r+1, r, r), \text{ with } \alpha(r) > 0, \text{ and}$$

$$u(r) = \text{Max} \{q(r, r, r), q(r+1, r, r)\} \text{ otherwise.}$$

Analogously, for agent m suppose that when $q(m, m, m)$ and $q(1, m, m)$ both positive

$$u(m) = \alpha(m) + q(m, m, m) + q(1, m, m), \text{ again with } \alpha(m) > 0, \text{ and}$$

$$u(m) = \text{Max} \{q(m, m, m), q(1, m, m)\} \text{ otherwise.}$$

It follows then that agent $r \neq m$ (resp. m) is informed in respect of the qualities of

commodities r and $r+1$ (resp. m and 1) and uninformed elsewhere.

A representation and the underlying quality that it purports to describe are assumed to relate to one another in a fairly natural way. When facing an informed buyer, the seller really has no option but to ensure that representation and true quality coincide, so that one has

$$(4.4.5) \quad q^*(r, s, r-1) = q(r, s, r-1), \quad r = 2, \dots, m \text{ and all } s,$$

and analogously $q^*(1, s, m) = q(1, s, m)$, all s .

This merely formalises the preceding remarks. Here agent s is supplying commodity r of quality q to agent $r-1$. But from the pay-off functions we see that agent $r-1$ (if possible) uses commodity r , and is therefore informed in r . There is therefore no point in s *misrepresenting* the quality of r supplied to $r-1$. So I stipulate that s 's representation of quality and the actual quality must coincide in this case.

But when the buyer is uninformed, the seller is effectively free to choose a representation anywhere in the closed unit interval. In fact, because of this extra degree of freedom, one can show that any seller facing an uninformed buyer will always supply goods of zero quality. In effect, bearing in mind the pay-off functions and the fact that producers do not in any case buy their own commodity-products back from intermediaries, one is here considering transactions of the following form

$$q(r, s, t), \quad t \neq r-1$$

that is to say, where the recipient of commodity r is any agent other than the producer of commodity $r-1$. And there are three possibilities. The first is that $s = r$, that is to say, that the seller of r is in fact its producer.

First note that the quality of commodities supplied by an uninformed agent does not depend upon the quality of goods supplied by the seller, and, in particular, the quality q (

$r+1, r, r$), i.e. the quality of commodity $r+1$ that agent r ends up with will be independent of $q(\cdot, r, t)$, $t \neq r-1$, i.e. the quality of commodities supplied by agent r to uninformed transactors. But, of course, her pay-off cannot be. For the situation where both $q(r, r, r)$ and $q(r+1, r, r)$ are positive, one has

$$u(r) = \alpha(r) + [1 - \sum_{t \in T \setminus \{r, r-1\}} q(r, r, t) - q(r, r, r-1)] + q(r+1, r, r),$$

or, if either $q(r, r, r)$ or $q(r+1, r, r) = 0$, then

$$u(r) = 1 - \sum_{t \in T \setminus \{r, r-1\}} q(r, r, t) - q(r, r, r-1).$$

It is immediate that in both cases $u(r)$ is maximised relative to $(q(r, r, t))_{t \in T \setminus \{r, r-1\}}$ at 0.

Now consider the remaining possibilities: in both cases one has

$$q(r, s, t), r \neq s \text{ and } t \neq r-1$$

but either $s = r-1$ or not.

First, if $s = r-1$ then the preceding argument with respect to $s = r$ applies *a fortiori*: the pay-off of agent $r-1$ is maximised at $(q(r, r-1, t)) = 0$ for those t uninformed in commodity-product r .

On the other hand, if $s \neq r-1$ then s is uninformed in r and, again, using the preceding argument, will be in receipt of a consignment of commodity r of zero quality. The commodity r that she, as intermediary, supplies to others will therefore also be of zero quality.

In sum then: sellers will always supply commodities of zero quality to uninformed

buyers. For later reference, call this *Lemma 1*.

Further, since it turns out that, invariably, uninformed buyers are sold goods of zero quality and uninformed sellers sell goods of zero quality, one should surely insist that this is reflected in the space of allowable representations. Accordingly, I assume

$$(4.4.6) \quad q^*(r, s, t) = 0, \text{ all } s \text{ and/or } t \text{ uninformed in } r.$$

And, finally, to capture the idea that payment has to be in kind rather than on account, I require that

$$(4.4.7.) \quad q^*(r, s, t) > 0 \Rightarrow q^*(r', t, s) > 0, \text{ for some products, } r \text{ and } r', r \neq r', \text{ and } s \neq t$$

in words, agent s will purport to supply commodity r of some quality to agent t if and only if t reciprocates, i.e. if agent t in turn purports to supply some other commodity, say r' , to agent s .

Call an allocation *feasible* if (4.4.5), (4.4.6) and (4.4.7) are satisfied, and a feasible allocation an *equilibrium* if, given $(q(s, s, s))_{s \in T \setminus r}$ (i.e. the list of own-product usages excluding that of the r^{th} transactor),

$q(r, r, r)$ maximises $u(r, [q(r, r, r), (q(s, s, s))_{s \in T \setminus r}])$ on the appropriately restricted subset of the closed unit interval for $r = 1, 2, \dots$

Now, there are fairly obvious incentives in this model for markets to open and, were the problem one of *quantity* (rather than *quality*) allocation, the gains from trade (captured by the $\alpha(\cdot)$ terms in the pay-off functions) would almost surely be exploited. Consider, for example, the allocation

$$q(r, r, m) = \beta, \quad r = 1, \dots, m-1$$

$$q(1, m, m) = \beta$$

$$q(r, m, r-1) = \beta, \quad r = 2, \dots, m$$

$$q(r, r, r) = 1 - \beta, \quad \text{all } r, \text{ and}$$

$$q(r, s, t) = 0 \text{ otherwise}$$

where $0 < \beta < 1$.

This *quantity* allocation is supposed to work as follows. Each agent supplies a fraction β of her product to agent m , thus retaining the fraction $1 - \beta$. In turn agent m passes on these receipts: the fraction β of commodity-product 2 to agent 1, the fraction β of commodity-product 3 to agent 2, and so on, but retaining for her own use the fraction β of commodity 1 and the fraction $1 - \beta$ of her own product. Agent m thus acts as intermediary, so ensuring that 4.4.7 holds everywhere.

With regard to 4.4.5 and 4.4.6, one should note that, assuming agents can count, verification of quantity does not pose the same difficulty as quality verification; in particular, where the problem is one of allocating *quantities* of commodity-products of *known quality*, in place of 4.4.5 and 4.4.6 one would have

$$q^*(r, s, t) = q(r, s, t) \text{ everywhere.}$$

Thus, bearing in mind the previous remarks, the Beta allocation, understood for the moment as a quantity allocation of known qualities, is certainly feasible.

But is $q(r, r, r) = 1 - \beta$ a maximiser for all r ?

Suppose not. Then one has, for some r , and, say, $q'(r, r, r) \neq q(r, r, r)$, both

$$u[r, (q'(r, r, r), (q(s, s, s))_{s \in T_r})] > u[r, (q(r, r, r), (q(s, s, s))_{s \in T_r})] \text{ and}$$

$[q'(r, r, r), (q(s, s, s))_{s \in T \setminus r}]$ feasible,

with $q(r, r, r) = 1 - \beta$, and also $q(s, s, s) = 1 - \beta$, for $s \in T \setminus r$.

But these two statements are contradictory: the first implying that $q'(r, r, r) > 1 - \beta$, and the second, that $q'(r, r, r) = 1 - \beta$. Thus, if q stands for quantity, the Beta allocation is certainly an equilibrium and, since β was chosen arbitrarily, by varying that parameter over the open unit interval, one can generate an uncountably infinite number of others.

Note also that the null-trade allocation (i.e. $\beta = 0$) is a possible equilibrium too; but because non-trivial equilibria are so numerous, the possibility is a strictly negligible one.

It is a different story, though, when the problem is quality rather than quantity. In fact, the situation is exactly reversed: the measure of the subset of equilibria characterised by some degree of meaningful exchange shrinks from one to zero. Otherwise expressed, the probability of a null-trade equilibrium goes from zero to one. A proof of this fact follows.

First, it is immediate that the trivial (i.e. null-trade) allocation, *viz*, $q(r, r, r) = 1$ for all r , is an equilibrium. And to see that it is unique, suppose to the contrary that there is another with $q(r, r, r) < 1$, for some r . Then, from (4.4.2), one has $q(r, r, t) > 0$ for some $t \neq r$. But $q(r, r, t') = 0$ for t' uninformed (Lemma 1), so t must be informed.

Transactor t must therefore be producer and/or user of product r and, since $t \neq r$, one has $t = r-1$ (recall the pay-off functions). Thus $q(r, r, t) > 0$, $t \neq r$, implies $q(r, r, r-1) > 0$. Therefore, in order to prove the supposition false, it suffices to show that $q(r, r, r-1) > 0$ is not a feasible transaction. To see that it is not, consider the following.

Transactor $r-1$ is a user of (and therefore informed in) product r and so, by (4.4.5), $q^*(r, r, r-1) = q(r, r, r-1)$. Moreover, since $q(r, r, r-1)$ supposedly positive, $q^*(r, r, r-1) > 0$ also. But recall that, from (4.4.7), for $q^*(r, r, r-1)$ feasible one must

have $q^*(r', r-1, r) > 0$ for some $r' \neq r$. Consider then the products $T \setminus r$. Transactor $r-1$ is informed in product $r-1$ but not so transactor r . Conversely, while transactor r is informed in product $r+1$, not so transactor $r-1$. Finally, both transactors are uninformed in products $T \setminus \{r-1, r, r+1\}$. Therefore, by (4.4.6), one has $q^*(r', r-1, r) = 0$ for all $r' \in T \setminus r$, which concludes the proof.

It is clear enough that the quality model cannot work as it stands; and so, too, the reason why. The structure of information is such that the producer invariably finds himself selling in a market populated by ignorant buyers - a situation he cannot help but try to exploit. But when all producers do this, as they will, the result is autarky. Nor is the information structure particularly contrived: a population of economic agents, each of whom is able only to recognise the quality of those product-types that he or she manufactures and/or regularly uses, is more or less as one would expect.

What one generally finds, however, is something rather different. Invariably, transactors do seem to develop an expertise in recognising the attributes of ostensibly quite alien products; and, moreover, certain commodities seem to come into vogue if for no other reason than that they make such a development possible. But there is no real mystery here (*pace* Menger, cit. Clower, 1977). The introduction of a money commodity - *viz.* a product or commitment whose quality is readily apparent to all - makes possible a sequence of transactions between bilaterally informed traders and so eliminates the degeneracy described above.

4.5 Concluding Remarks

In characteristically strident fashion Blaug (1985:266) advises his readers that “.....*Capital*, vol.1 should hold no terrors for anyone who has managed to get through Ricardo's *Principals*”; and, more particularly, that “... there is nothing in these chapters (*viz.* *Capital I, Part I: Commodities and Money*) not found in Ricardo or Mill”. In fact, as this paper has tried to show, Marx's theory of the commodity and money is nothing like late-classical theory. Even when the two appear to meet, as in, say, the formal

juxtaposition of the use-value and exchange-value characteristics of the commodity, the similarity falls away under closer scrutiny: "Economists usually reason that the emergence of money is due to external difficulties which the expansion of barter encounters, but they forget that these difficulties arise from the evolution of exchange-value and hence from that of social labour as universal labour ... on the plea of examining simple barter, these economists display certain aspects of the contradiction inherent in the commodity as being the direct unity of use-value and exchange-value. On the other hand, they then persistently regard barter as a form well adapted to commodity exchange, suffering merely from certain technical inconveniences, to overcome which money has been cunningly devised" (Marx, 1971:50-51). There is, in other words, a world of difference between, on the one hand, the production of artefacts by directly associated producers - which may then acquire *ex post* the formal characteristics of the commodity - and, on the other, the production of commodities by private, value-positing labour. It is, of course, in the latter case alone that the immediate incompatibility between the technical and social functions of the commodity surfaces in a profound way.

The essential vision in Marx is one of money as imposing a discipline on the otherwise chaotic space of private decisions - a way of sanctioning (or not, as the case may be) the expenditure of effort undertaken on private account. In Ricardo, where the underlying conception is one of immediately-social activity, this function makes no sense - which is why an explanation of money has then to be rooted in some variant of the double-coincidence dogma. But for Marx, as De Vroey explains, "...the creation of value is no longer just a technological process. It depends on social recognition by the market of a privately initiated allocation of the social labour force. Thus, the notion of value, rather than being linked to a mere embodiment of labour, refers to its social validation. In this system the expenditure of labour (or in the case of services, the mobilisation of a labour force at the disposal of customers) and its validation are dissociated. A gymnastic feat is required to reunite them. This implies that failure is possible ... money enables private activities to form a social coherence and the products of such to exist as commodities. It is through their relationship to money that they are able to gain social recognition" (1981:176 and 185; see also Aglietta, 1979, and Likitkijsomboon, 1995:78 and 86).

It seems to me that the Aglietta-De Vroey-Likitkijksomboon account is both a faithful and intelligent reconstruction of the essential Marxian position - echoing as it does the reading given in the 1920's by the Russian scholar, I.I. Rubin (see Rubin, 1972). But, like the original, it begs a number of questions. The particular question addressed here in this chapter is: how exactly does money enable private activities to form a social coherence? The answer apparently favoured by Marx is that the private producer has no clear-cut way of knowing how much to produce and so needs to be told - the formation of money being somehow part of that 'telling' process.

My own answer is somewhat different. It may or may not be that the private producer has a problem determining exactly how much of his product constitutes a 'socially-useful' quantity. But, in any case, he is not in the business of producing socially-useful artefacts; rather, it is sufficient for his purpose to produce artefacts that are accepted as such - artefacts that *appear* as socially-useful. Money then surfaces to ensure a closer correspondence between appearance and reality than would otherwise be the case. According to this view, money regulates the *quality* rather than *quantity* of production.

Marx's approach also begs another, and in a certain sense, more fundamental question. If money is supposed to be part of the process that socialises the activities of politically independent producers in their commodity-economic doings, then what exactly does *social* mean in this context? I will return to this question in subsequent chapters.

5. VALUE -SUBSTANCE AND THE SOCIAL

5.1 Introduction

In the last chapter, it was argued that the necessity of monetised commodity exchange derives not so much from the need to regulate the *quantities* of private production (as Marx had thought, for, if nothing else is said, other, non-monetary, media of exchange would surely coordinate activities just as effectively) but rather to ensure a coherence of product-*qualities*. In the spirit of, *inter alia*, King and Prosser (1986), Williamson and Wright (1991) and Li (1994), the theory in 4.4 has money imposing a (necessary) discipline on an otherwise (systemically) dysfunctional space of private producers, which, as such, is (naturally) characterised by specialisation and informational asymmetries. Yet such a theory is also in the spirit of Marx, who is at pains to emphasise that, though money 'crystallises' out of commodity-*exchange*, it does this precisely because commodity-*exchange* is but a moment of commodity-*production*. For Marx then, commodity-circulation, and therefore money also, has *labour* as its animating principle.

But if Marx neglects the qualitative dimension of commodity-producers' activities in regard to the monetisation issue, the same cannot be said of the labour that he supposes money to represent. On the contrary, such a collective forgetting is, he says, the 'weak point' of the classical school: for, though a quantitative-qualitative demarcation is 'implied' by what it says, is 'practically made' in its discourse, "...it nowhere, expressly and with full consciousness, distinguishes between labour, as it appears in the value of a product and the same labour, as it appears in the use-value of that product" (Marx, 1974a:84). So, for example, though Adam Smith (1986) makes the division of labour and the value-form mutually conditioning, for all the difference that it makes to the import of his arguments, he may as well say 'division of activities'. He forgets that this activity, this labour - the division of which is facilitated by the extent of the market - is already a social determination.

Marx's invocation of the social sometimes amounts to little more than a nod in the

direction of Kant's second *Critique* and its allusion to human being as necessarily dependent being (see 8.2 above). More usually, however, *social* for Marx carries an unmistakably negative charge, a recollection of that insidious determination which the political economist forgets. It is in this latter mode - as structural limitation; more, as an *a priori* restriction on the space of material possibilities - that Marx speaks of (social) labour as the substance of value, and it is this way of seeing the social which I will want to explore below.

5.2 The Mathematics of the Social

The word that Marx typically uses to convey the idea of structure is *social*. However, the usage is not always consistent. In some places social seems to mean structure in general - as in this passage from *Capital*, for example: "from the moment that men in any way work for one another, their labour assumes a social form" (Marx, 1974a:76). Or, again, in the 1868 letter to Kugelmann, the same notion of structural imperative emerges: "... 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 ... is self-evident" (Marx, 1965:251).

Elsewhere, though, Marx associates the term social not so much with structure *per se* as with a particular class of structures. Their characteristic form is described in various ways by Marx. He speaks, for example, of the performance of labour as constituted and driven by 'social duty' or 'external necessity' (1972:257) or, again, echoing a phrase coined by the young Engels, as based on the 'unconsciousness of the participants' (Marx, 1977a:180). But the essential idea is clear enough: activity is driven in these structures by "... a socially determined interest [and] can only be achieved within the conditions laid down by society (and it is therefore) bound to these conditions and means ... its content, as well as the form and means of its realisation, is given by social conditions independent of all" (1973:156).

In contrast to what Marx calls 'free' or 'freely-associated' activity (1974a:82-84; 1972:257), a form of activity for which there are no 'presuppositions', where the worker "...does not produce himself in any determined form" (Marx, 1973:488), the performance of social labour implies some kind of unnatural yet *a priori* restriction on the way different individual labours are allowed to interact (in a similar vein, see Williams, 1998:197). At the expense of some algebra, this idea can be made more precise.

Attainable Activities

To fix ideas, consider a finite set A of economic agents, an activity space \mathbb{R}^n , and a map

$$f: A \rightarrow \mathbb{R}^n$$

which designates the flows of materials and services to and from each of the agents. Inputs and outputs are distinguished by negative and positive sign respectively. Call $f(a)$ an *activity*, and f a *state of the economy*. What are the natural determinants to which Marx alludes - those absolutes that 'cannot be done away with'?

One is that each agent must have the technology to carry out the activity prescribed under f . Suppose the correspondence

$$T: A \rightarrow \mathbb{R}^n$$

gives the prevailing technologies. Then it must be the case that

$$(5.2.1) \quad f \in T.$$

In addition, the flows between agents must exhibit a certain consistency; condition (5.2.1) on individual technologies does not by itself ensure this. Denote as L those states for which $(f(a))_A$ belong to the linear manifold

$$\{(f(a))_A \mid \sum_A f(a) = 0\}.$$

Then, ignoring possible indivisibilities (see, for example, 4.2 above), it is sufficient for the component activities to make aggregate sense that

$$(5.2.2) \quad f \in L.$$

In the literature (see, for example, Koopmans, 1951) those states that have both properties (5.2.1) and (5.2.2) are called *attainable*. The set of attainable states is given by $T \cap L$ and denoted F . In what follows, however, it will sometimes be more convenient to work with a related concept. By associating with each agent all those activities prescribed for him under the various attainable states one defines the correspondence

$$F_A: A \rightarrow R^n$$

where

$$F_A(a) \text{ is given by the formula } \{f(a) \mid f \in F\}.$$

I will call F_A the *space of attainable activities*.

The Space of Concrete Labours

Now consider a certain co-ordinate subspace of R^n . Marx defines concrete, useful labour as labour in its mundane, everyday sense, as "... productive activity of a definite kind and exercised with a definite aim" (Marx, 1974:49): driving a car, stitching shoes, superintending a production-line *etc., etc.* Suppose that the different types of useful labour comprise a proper subset I of the first n positive integers $\{1, 2, \dots, n\}$. Then I shall call the n -tuple of real numbers $f^-(a)$ the *concrete labour* or *labour-complex* performed by a if one has

$f^-(i, a) = f(i, a)$ for all $i \in I$ and $f(i, a) > 0$, and

$f^-(i, a) = 0$ otherwise.

Clearly, the concept of attainability as defined in the preceding sub-section induces a natural structure on the space of work. A labour-complex is feasible if and only if it is a cut-down version of an attainable activity. One therefore defines

(5.2.3) $F^- = \{f^- \mid f \in F\}$ and

(5.2.4) $F^-(a) = \{f^-(a) \mid f(a) \in F_A(a)\}$

The first of these two formulae gives the set of attainable labour-states, and the second associates with each $a \in A$ the various a-component labour-complexes corresponding to each of those states. Both therefore describe the structure of what Marx calls the "... material interchange between man and nature, quite independent of the form of society" (1971:36).

Social Labour

Loosely speaking, the concept of attainability tries to capture the choices that nature makes. For this reason I will also refer to F as the *natural space of states* and, analogously, to F^- as the *natural space of labour*.

To represent the choices that people make, I need two additional pieces of terminology. First, let S and S^- comprise the state and labour spaces on which social choice is defined. I shall call S and S^- the *social space of states* and the *social space of labour* respectively. Second, let m denote the complicated amalgam of individual and collective choice that operates on those social spaces. Call m a *choice mechanism*. Heuristically, one can write

$$m(S, S^*) = (f, f^*)$$

There is of course a fairly obvious relation between natural and social spaces. The social choice mechanism can only choose states that are naturally-available. One therefore has

$$S \subseteq F$$

and, analogously, on the labour sub-spaces

$$S^* \subseteq F^*.$$

On the other hand, a moment's reflection reveals that the converse inclusions need not hold. In traditional forms of society, for example, where individuals "...enter into connection with one another only as individuals imprisoned within a certain definition, as feudal lord and vassal, ...members of a caste ... or as members of an estate, etc."

(1973:163), the choices that people make are evidently defined on a much smaller space than the space of natural states. Certain naturally-available states, certain naturally-available dispositions of work, are *a priori* excluded from social consideration. This motivates the following definition. Suppose in a particular society one has

$$S \subset F \text{ and } S^* \subset F^*$$

Then the labour performed in such an economy I shall call *social*. The essential idea is that certain naturally-available dispositions of work are simply not on the social agenda. Social labour can therefore be thought of as an *a priori* restriction on the natural space of labour.

5.3 Social Labour and the Commodity Economy

According to Marx, the phenomenon of social labour expresses itself in different ways in different societies, and with varying degrees of clarity. The social character of traditional forms of activity of course goes without saying. But the status of commodity-economic activity is a more delicate problem, Marx contends, because "... value ... does not stalk about with a label describing what it is" (1974a:79). Nevertheless, although "... individuals seem independent ... free to collide with one another and to engage in exchange within this freedom ... they appear thus only for someone who abstracts from the *conditions*, the *conditions of existence* within which these individuals enter into contact (and these conditions, in turn, are independent of the individuals ...). The definedness of individuals, which in the case of traditional labour, appears as a personal restriction of the individual by another, appears in the case of bourgeois labour as developed into an objective restriction of the individual by relations independent of him and sufficient unto themselves These external relations are very far from being an abolition of 'relations of dependence'; they are rather the dissolution of these relations into a general form; they are merely the elaboration and emergence of the general *foundation* of the relations of personal dependence". And, significantly, Marx concludes "... here also individuals come into connection with one another only in determined ways" (1973:163-164; Marx's emphasis; translation slightly modified.)

The idea that there is some sort of *a priori* social determinism at work within the commodity-economy is of course fiercely contested by the value-moderns, and particularly by economists from the Austrian school (see, for example, Kirzner, 1976), who discount Marx's views as those of a pre-modern (i.e. pre-neoclassical) price theorist: one whose price-theoretical limitations lead him to take literally standard descriptions of market behaviour that are meant only as metaphors. According to von Mises, for example, market forces are to be regarded as autonomous and impersonal only in a manner of speaking. In fact, "... no 'automatic' and 'anonymous' forces actuate the 'mechanism' of the market. The only factors directing the market and determining prices are purposive acts of men. There is no automatism; there are [rather] men consciously

aiming at ends chosen and deliberately resorting to definite means for the attainment of these ends". Von Mises continues: "[t]here are no mysterious mechanical forces; there is only the will of every individual to satisfy his demand for various goods. There is no anonymity; there are you and I and Bill and Joe and all the rest ... Each contributes his share to the determination of prices' (von Mises, 1977:29).

Von Mises' last point may be explicated as follows. Consider a commodity economy organised along standard Walrasian lines. Each agent $a \in A$ is characterised by a preference relation and technology set, say $\succsim (a)$ and $T(a)$ respectively, and faces a competitive price list p . An activity is then chosen from a budget set of the form

$$B(a, p) := \{ x \in T(a) \text{ such that } px \geq 0 \}$$

Let $f: A \rightarrow \mathbb{R}^n$ represent those choices and assume, with no loss of generality here, that the choices made respond in a single-valued way to variations in price. One may then write for every agent

$$f(a, p)$$

which seems to be saying that agents respond to price as though to some external stimulus.

As it turns out, however, prices also respond to agents' choices. For if their privately formulated plans are to be made mutually compatible - and this is the fundamental role prices are supposed to play in this process - then p has to solve the problem

$$\sum_A f(a, p) = 0.$$

Naturally, this solution will vary over the space of agents' characteristics - which is to say that different preferences and technologies require different price lists to make agents'

activities mutually compatible - so that one may write $p \geq T$. In a roundabout way, therefore, agents choose price as well as quantity in a commodity economy.

It is this characteristic double determination, so his critics claim, that Marx fails to understand. Blaug, for example, writes that Marx's '... indictment, while ostensibly profound, rests on a simple confusion between price-determined behaviour as seen by individuals and behaviour-determined prices as they appear in the market' (Blaug, 1985:268). Marx's 'simple confusion', in other words, is to abstract from the process whereby agents' preferences are reflected in the price-choices that the market makes - so leaving price as an apparently autonomous force which determines the situation individuals face in *a priori* fashion.

One could set against the claims of his critics ample textual evidence to support the view that Marx understands the complex mechanics of the market-place well-enough. In the *Grundrisse*, for example, he writes: "... (as) the world market increases with the development of monetary relations and vice versa, and as the general, all-round interdependence in production and consumption increase together with the independence and indifference of consumers and producers to one another ... institutions emerge whereby each individual can acquire information about the activity of all others and attempt to adjust his own accordingly ... This means that, although the total supply and demand are independent of the actions of each individual, everyone attempts to inform himself about them, and this knowledge then reacts back in practice on the total supply and demand" (1973:160-161; translation slightly modified.)

In fact, though, Marx's ability to grasp the analytics of conventional price theory is beside the point: the extent to which the preferences of private individuals are able to make themselves felt through the market is not the issue for Marx. The point is rather that "... private interest is itself already a socially determined interest, which can be achieved only within the conditions laid down by society and with the means provided by society; hence it is bound to the reproduction of these conditions and means. It is the interest of private persons; but its content, as well as the form and means of its realisation, is given by social

conditions independent of all" (Marx,1973:156).

The commodity-economic form for Marx, to reiterate, consists merely in the freedom of a particular form of individuality (see Forbes:1991), that of *isolated* individuality, a freedom to choose within the rules but not the rules themselves, a freedom to associate with whoever one so chooses, but only in a form which lies outside all individuals 'as their fate'. Rather than combination-for-itself the commodity-form consists of "combination-in-itself..... subservient to and led by an alien will and intelligence"; it has its 'animating unity' elsewhere. So while it may be accurate in a certain sense to describe market phenomena as arising from the 'mutual influence of conscious individuals on one another' (as per Mises and Blaug above), the 'total process' (and *pace* Mises and Blaug) is 'neither located in their consciousness, nor subsumed under them as a whole'.

Commodity- economic relations for Marx, then, consist in a strictly limited conception of the species and thus also of the opportunities which a species-life would afford (Marx, 1973:158;196-7; 470; and 7.3 and 8.4 above).

It now remains to show how this limited (and limiting) conception manifests itself in the space of work and so allows the formation of social labour.

5.4 Free to Choose?

Central to the mythology of the market-place is the idea that in the commodity-economy no naturally-available outcome is ruled out prior to the market getting to work, no feasible outcome a priori excluded from social consideration, or, again, no possible configuration of activity rejected unless found to be incompatible with the structure of agents' preferences (the von Misesan 'you, I, Bill and Joe' principle).

In other words, and on the value-modern view, if one now interprets m as some kind of market mechanism, and F and S are the relevant natural and social state spaces, then

$S = F$.

The same idea can of course be expressed on the space of labour rather than that of states: if F^- and S^- are the natural and social labour spaces corresponding to F and S , then

$$S^- = F^-$$

Marx's position can be stated with equal clarity. If m is a market choice mechanism, (F, F^-) and (S, S^-) the natural and social spaces respectively, then for sure

$$S \subset F$$

and

$$S^- \subset F^-.$$

According to this interpretation, then, Marx does not contest the idea that the market mechanism somehow embodies the preferences of individuals in an essential way (albeit those of isolated individuals). Rather, Marx's point is that before any kind of preference has been expressed, the relevant space of choice has already been reduced, a certain subspace of material possibilities already somehow closed to social consideration.

In general, Marx's thesis is a difficult one to substantiate because the effects of the *a priori* social determinism and those ostensible features of the market process to which the value-moderns appeal do not usually separate out in a convenient way. This gives rise to the appearance that the market is doing all the work - a "... semblance (which) seduces the democrats", according to Marx (1973:163). However, in some situations at least, Marx's point can be clearly demonstrated.

Below, I consider two scenarios. First: an economy comprising two large classes of agents A' and A'' producing, say, food and labour-power respectively. Technology is

such that agents in A' use α units of labour per unit of food and, conversely, A'' agents require β units of food per unit of labour power. Naturally, $\alpha > 0$ and $\beta > 0$; but suppose also that $\alpha\beta < 1$ and that there is free disposal. Denote as $x(a)$ the output of the typical agent and as x' and x'' the sum of outputs for the sectors A' and A'' respectively; that is to say

$$x' = \sum_{a \in A'} x(a) \text{ and } x'' = \sum_{a \in A''} x(a)$$

Consider now the natural space of states. In the food-producing sector total inputs of labour-power must not exceed its availability. On the other hand, food production must be sufficient to meet the demands of the workforce. Otherwise expressed, one must have

$$(5.4.1) \quad \alpha x' \leq x'' \text{ and } \beta x'' \leq x'$$

which may also be written as

$$\beta \leq x'/x'' \leq 1/\alpha$$

F therefore comprises $\{(x(a))_{a \in (A' \cup A'')}\}$ such that $x'/x'' \in [\beta, 1/\alpha]$, which, since $\beta < 1/\alpha$, is a set containing an uncountable infinity of elements.

However, if food and labour-power now take the commodity-form, and production is regulated by perfectly co-ordinated markets, the set of social (as against natural) possibilities is somewhat smaller; indeed, S is empty. To see this, note first that there can be no non-trivial solution with demand and supply matched in both sectors; for then the restrictions (5.4.1), holding with equality, would define the linear homogeneous system:-

$$\alpha x' - x'' = 0$$

$$\beta x'' - x' = 0.$$

A non-zero solution to these equations exists if and only if the determinant $(\alpha\beta - 1)$

vanishes, in which case one would solve for a unique ratio of food to labour-power production, and preferences would then be free to determine production levels. But since $(\alpha\beta-1)$ is in fact non-zero, this is not possible here. It thus follows that a commodity-economic solution requires a supply in excess of industrial requirements in at least one of the two sectors.

Consider the alternatives. If supply exceeds demand in either one commodity, then competitive pressures will drive its price to zero and agents in that sector will not be able to satisfy their budget constraints at any positive level of production. On the other hand, if both goods are produced in abundance and both prices thereby driven to zero, then this would also preclude any commodity-economic exchange. Conventional analysis would say that one has here merely a case of non-existence of equilibrium. Marx, however, would want to place a different gloss on proceedings: here a situation arises in which commercialisation of the production process frustrates rather than facilitates co-operation: here, the space of socially possible interaction has been closed off as if by blind institutional fiat.

My second scenario (of which the first scenario is a special case) is the so-called L- (for Leontief) economy (see Arrow and Hahn, 1971) which has the peculiar property that if a Walras price vector exists, then it can be formulated independently of agents' preferences, determined by production technology alone. As far as Marx's basic thesis is concerned, this peculiarity is not significant because although prices are determined by technology alone, the L-economy is no exception to the general rule that the choice mechanism itself will reflect both technology and preferences. As before, one writes

$$m(S, S^-) = (f, f^-)$$

but where, in this particular case, $m = m(\succsim, T, p(T))$.

What does prove Marx's point, however, is the composition of the choice sets (S, S^-) upon which the mechanism m is allowed to operate. I will focus on S^- in a certain sense

the more primitive of the two.

Consider the typical agent a . The story usually told is that she comes to market with the capacity to undertake any of the jobs in $F^{-}_A(a)$ and the market then decides which of these is appropriate. The implicit assumption in other words is that

$$S^{-}_A(a) = F^{-}_A(a).$$

In fact, though, this is not correct. The choice mechanism m does not consider the totality of the space $F^{-}_A(a)$, but rather only that sub-space of labour-complexes associated with activities for which the budget restriction $p \cdot f(a) \geq 0$ holds.

Consequently, one has

$$S^{-}_A(a) = \{f^{-}(a) \in F^{-}_A(a) \text{ such that } p \cdot f(a) \geq 0\},$$

and since p is assigned independently of m

$$S^{-}_A(a) \subset F^{-}_A(a) \text{ also.}$$

Thus a well-defined portion of the natural labour space is seen to be simply not on the social agenda. The situation is somewhat analogous to a lottery in which a number of legitimate tickets have for some reason not been placed in the draw.

5.5 Concluding Remarks

The concept of social labour is literally central to Marx's theory of value. For Marx social labour forms the substance of value, thus assuming the role played by (ostensibly) concrete-useful labour in earlier classical theory, and by *rarete* and 'economising' in the later Lausanne and Austrian explanations respectively. It is unfortunate, therefore, that Marx fails to give the concept a clear, unambiguous definition.

One way of reading Marx is as Rubin does. Rubin attributes to Marx the view that labour is always social insofar as the tasks performed by individual agents are but the related components of a much larger, organic whole. "Labour is social", Rubin writes, "if it is examined as part of the total mass of homogeneous social labour or ... if it is seen in terms of its relation to the total labour of society" (1972:141). Of course, in some societies labour becomes social through administrative fiat. Thus, "...in a large socialist community, the labour of the members of the community in its concrete form ... is directly included in the unified working mechanism of society labour in its concrete form is in this case directly social labour" (*ibid*). But, such a mechanism is not available in bourgeois society, so that "... the absence of direct regulation of the social process of production necessarily leads to the indirect regulation of the production process through the market, through the product of labour, through things" (Rubin,1972:59). Social labour can therefore be said to be the substance or basis of value in the sense that the phenomenal forms of value - markets, prices, the 'cash nexus' - have as their *raison d'etre* the effective disposition of work throughout the economy in the absence of a more explicit or 'direct' mechanism for doing so. It is in this context that Rubin writes of the 'function of value' as the "... regulator of the distribution of labour" (Rubin, 1972:105; see also Perlman, 1972:xxx, and Elson, 1979).

Marx can be read in this way, though at the expense of construing 'labour', its 'organic unity' and social construction as natural events (see 7 and 8 below). But for every passage in Marx where the 'socialness' of labour can be interpreted as the various proportions in which individual labours stand to total labour, or with the (supposed) universal need to somehow regulate these proportions in the interests of social coherence, another passage can be found from which a much more complex and more interesting definition emerges. Though expressed in various ways, the essential idea is of social labour as an *a priori* yet unnatural restriction on the way a society chooses the tasks to be performed and by whom.

I have attempted to do two things in this chapter: first, to make mathematically precise the concept of social labour as an *a priori*, yet unnatural, restriction on the space of

human activity; and, second, to use this definition to vindicate Marx's contention that bourgeois, value-oriented activity does indeed conform to this definition. In so doing one shows that the fetishism explored in **3** and **4** above has material consequences. In the process one also demonstrates a certain social 'sameness' about the labour performed in traditional and bourgeois forms of society. This is not however to say that the two basic types of social labour are indistinguishable; in fact, an essential difference between the two plays a big role in Marx's analysis. But that is another story, and one which I take up in the next chapter.

6. ABSTRACT GENERAL LABOUR

6.1 Introduction

In the first chapter of *Capital* Marx tells of a '... recent scientific discovery' so profound in his view that it '... marks an epoch in the ... development of the human race' (Marx, 1974:79). It is to this same discovery that Ricardo alludes when writing of a "... doctrine of the utmost importance in political economy" (Ricardo, 1987:77). Both of course refer to the classical labour theory of value, according to which (or, rather, according to the latter's interpretation of this theory) commodities are supposed to exchange in rough proportion to the relative amounts of labour expended during production.

The labour theory of value provides common ground between Ricardo and Marx, and so between what are otherwise dissimilar approaches to the study of socio-economic phenomena. Yet it also constitutes their point of departure. For Ricardo, labour means 'human industry' (Ricardo, *op.cit.*,12) - in other words, work. But as Marx never tires of stressing, the value-substance cannot be labour in this sense. Ricardo fails to discriminate between the concrete, technical aspects of commodity production and its social, value-producing qualities. Marx leaves his readers in no doubt as to the importance he attaches to such a distinction: it is, he writes, the pivot on which a clear understanding of political economy turns" (Marx,1974a:49); '....all understanding of the facts depends upon this"; or again, "...it is the whole secret of the critical conception".

Marx's dual conception of labour does no more than draw in terms of commodity-producing activity a distinction which in terms of the commodity-product is readily apparent; for the fact that the commodity doubles as both technical and social object only begins to make sense if labour is also theorised in the same dualistic manner. It is as if the social aspect of the labour performed by, say, a tailor produces value in much the way that the concrete, useful aspect produces a suit of clothes. But not in exactly the same way: whereas one can visualise the process whereby the technical expertise of the worker translates into a product the parallel labour-value operation is imperceptible to the eye

and cannot even be adequately conceptualised in everyday terms. Marx does, however, claim that it can be measured.

I use the word *measure* here in its mathematical sense. A real-valued, nonnegative function defined on a certain class of sets is called a measure if the image of the union of disjoint sets in the domain is the same as the sum of their independent images. It is clear enough from the texts that Marx conceives of the relation between concrete and abstract labour as measure-theoretic in all but name; one could say that for Marx abstract general labour is supposed to somehow measure the *socialness* of work in a commodity economy. It is not clear, however, exactly how Marx imagines such a measure is constituted. This chapter explores the possibilities.

6.2. The Mathematics of Abstract Labour

I begin with some definitions.

Measurable Spaces

Let $x(A)$ denote some arbitrary set. A class X of subsets of $x(A)$ for which:

$$(6.2.1) \quad x(A) \in X$$

$$(6.2.2) \quad \text{any } X_i \in X \text{ implies its complement } C(X_i) \in X \text{ also}$$

$$(6.2.3) \quad \text{any countable sequence of sets } (X_i) \in X \text{ implies their union } \cup_i X_i \in X \text{ also}$$

is called a σ -algebra (in $x(A)$). Dual to 6.2.1 and 6.2.3 respectively (and using 6.2.2) one also has

$$(6.2.4) \quad \emptyset \in X$$

(6.2.5) any countable sequence of sets $(X_i) \in X$ implies their intersection $\cap_i X_i \in X$ also.

The pair $(\mathcal{X}(A), X)$ is called a measurable space.

Measure Spaces

Consider now the mapping $\mu: X \rightarrow \mathbb{R}$ such that

$$(6.2.6) \quad \mu(\emptyset) = 0$$

$$(6.2.7) \quad \mu(\cdot) \geq 0$$

(6.2.8) for every countable sequence (X_i) of disjoint sets of X , $\mu(\cup_i X_i) = \sum_i \mu(X_i)$.

The function μ is called a *measure* (on X), and the triple $(\mathcal{X}(A), X, \mu)$ a *measure space*.

A special kind of measure is generated by mapping X into the closed unit interval such that $\mu(\mathcal{X}(A)) = 1$. The function μ is then called a *probability measure*.

The Measure Space of Work

As with the commodity, Marx's analysis of labour considers first the form in which it appears, that is to say, as a diversity of purposive, useful operations, each of a "... definite kind and exercised with a definite aim". "To all the different varieties of use-values", he writes, "... there correspond as many different kinds of useful labour, classified according to the order, genus, species and variety to which they belong in the social division of labour" (Marx, 1974a:49).

To fix ideas, consider an economy comprising a finite set A of agents, each of whom

undertakes a distinct activity denoted respectively by the non-negative J -dimensional vectors $x(1), x(2), \dots, x(a)$. One can think of the set $J = \{1, 2, \dots, j, \dots, J\}$ as indexing the various technical operations performed throughout the economy, and with the number $x(j, a)$ as representing the amount of operation j performed by agent a . Otherwise expressed, the function $x: A \rightarrow \mathbb{R}_+^J$ specifies the work carried out in the economy (and by whom).

Consider now the image set of x , viz.,

$$\{z \text{ in } \mathbb{R}_+^J \text{ such that } z = x(a), \text{ for some } a \in A\}.$$

Its power set (the class of all of its subsets) is by definition closed with respect to the operations of taking complements, countable unions and countable intersections, and contains the null set and the image set of x itself. Such a set therefore constitutes an σ -algebra (see 6.2.1-4 above). In fact, it is clear that the image set of x and its power set correspond respectively to the sets $x(A)$ and X used in the definitions above, and are thus denoted as such. I shall call the pair $(x(A), X)$ a *measurable space of work*. It describes in part what Marx refers to as the "... material interchange between man and nature, quite independent of the form of society" (Marx, 1971:36).

Of course, the technical aspect of labour is only one-half the story. Work also has to be structured or socialised: producers have to be somehow told what needs to be done, in what quantities, and by whom. "It is self-evident", Marx writes, "... that (the) necessity of distributing social labour in definite proportions cannot be done away with"; or, again, it is clear that "... the mass of products corresponding to the different needs (of society) require different and quantitatively determined masses of the total labour of society" (Marx, 1965:251). But what particularly interests Marx is the way in which labour is socialised - the mechanics of the 'telling' process, so to speak - and how the socialness of labour presents itself in different forms of society.

Its presentation in the commodity economy strikes Marx as doubly curious. First, the

way in which commodity producers allow their products to do the talking for them - the way that a "... definite social relation between men ... assumes ... the fantastic form of a relation between things" (Marx, 1974a:77). This is in stark contrast to the situation which prevails in other societies where "... no matter ... what we may think of the parts played by the different classes ... the social relations between individuals in the performance of their labour appear ... as their own mutual personal relations, and are not disguised under the shape of ... relations between ... products" (Marx, 1974a:82). Only in bourgeois society, according to Marx, does the social character of work express itself in this mediate fashion.

But there is more. In other societies the socialness of labour is essentially qualitative and cannot be described independently of its manifold technical attributes: because "... personal dependence ... here characterises the social relations of production ... there is no necessity for labour and its products to assume a fantastic form different from their reality". In the bourgeois economy, however, all that changes. Not only does the socialness of work become disentangled from its 'peculiar and natural form' (*ibid*), but also the requirement that bourgeois labour express its social character in the form of the commodity-product and money is but a practical or 'real' reflection of a 'theoretical process' whereby the 'private labour of individuals' is 'transformed' into its 'immediate opposite', that is, into 'abstract general labour' (see Marx, 1972:136). The distinction between the socialness of different kinds of work in a commodity economy thus resolves itself into a purely *quantitative* one.

Despite the terminology, the transformation Marx has in mind does not convert one kind of 'labour' into another; nor does it reduce specific types of work into work of a more 'general' kind. Significantly Marx writes of a 'theoretical process', and work is never done in theory. Rather, the problem is one of finding a real-valued assignment defined on the space of work such that the numbers somehow convey *quantity*, or *degree*, of socialness. With no real loss of generality one can assume this degree of socialness to be non-negative and additive across industries, thus defining a measure function μ . I shall call the triple $(X(A), X, \mu)$ a measure space of work and the number $\mu(\cdot)$ a quantum of

abstract general labour. One can think of μ as the social density of X , where X is generated by an economy of commodity producers. The remaining sections of this paper consider its possible distribution.

6.3 On Abstract Labour and Labour Abstraction

Considered as technical objects, any two complexes of commodity-producing work can differ in as many as J different ways from one another. It is Marx's contention, though, that their social difference can be represented in one-dimensional form; that is, the socialness of work in a commodity economy reduces to pure quantity. Yet even pure quantity apparently requires a unit of measurement (see Hegel, 1967), and Marx argues that the socialness of work is measured by some function of its duration. But then the problem of qualitative difference reasserts itself in a new way: whose time is to form its unit of measurement? One has in principle J degrees of freedom. In practice, Marx argues, the problem can be simplified. Suppose J is partitioned into the *skill categories* $J^1, J^2, \dots, J^k, \dots, J^s, \dots$, each partition comprising jobs of equivalent technical dexterity. Call jobs of s -type simple or unskilled labour: it is '... labour which any average individual can be trained to do, the propensity for which exists in the organism of every ordinary individual' (Marx, 1971:31; 1974a:51). One can then take J^s -type work as the unit of measurement, more complex labour '... count(ing) ... as simple labour intensified, or rather as multiplied simple labour, a given quantity of skilled being considered equal to a greater quantity of simple labour' (Marx, 1974:51). How the 'counting' is done, Marx at this stage does not say. However, he does assure his readers that the 'reduction is constantly being made': the "... different proportions in which different sorts of labour are reduced to unskilled labour as their standard, are established by a social process that goes on behind the backs of the producers" (*ibid*).

Having given such an assurance, Marx moves on: "In the interests of simplification, we shall henceforth view every form of labour-power directly as simple labour-power ... (thus) saving ourselves the trouble of making the reduction" (Marx, 1976:135). Though never made explicit, the strategy seems to be to find a social density function say, ϕ ,

defined on a certain coordinate sub-space of $x(A)$ (more precisely, vectors of the form $x(a) \in \mathbb{R}_+^J$ with $x(j, a) = 0$ for all j not in J^S) and then to extend this function to $x(A)$ and thus into a space of more general dimensions.

The Socialness of Simple Labour

Consider then such a subspace, say, $S(A) \subset x(A)$ and denote as S its power set.

Analogous to 6.2 above I shall call $(S(A), S)$ the *space of simple labours* and $(S(A), S, \phi)$ its *measure space*. One may continue to think of the typical element of $S(A)$ as a complex of distinctive technical operations (as with elements of $x(A)$). But now another possibility emerges. By assumption its various co-ordinates represent the repeated application of the same 'simple' faculties, albeit directed towards different purposes and called by different names. There is a sense in which one may therefore think of $x(a) \in S(a)$ as an accumulation or expenditure of simple labour, viz, $\sum_{J^S} x(j, a)$. Denote this quantity as $s(a)$. The function $s: S \rightarrow \mathbb{R}$ thus defined might be called the technical density of $(S(A), S)$.

How does Marx see the composition of ϕ - that is to say, the assignment of abstract general labour in a simple-labour economy? It is clear that ϕ induces a binary relation on \mathbb{R} , viz, an association between expenditures of simple labour and quanta of abstract general labour measured in units of simple, unskilled labour. On Marx's understanding, however, it would be a mistake to conceive of this relation as an identity mapping; indeed, according to what Marx has to say, the relation induced by ϕ is not a mapping at all.

Lack of identity between the technical density and the social density of an agent's actions in a commodity economy can arise, according to Marx, for essentially two different reasons. First, the quantity of labour expended may be in excess of that which is socially-necessary, in excess of "... that required to produce an article under the normal conditions of production". So, for example, "... the introduction of power-looms ... probably reduced by one-half the labour required to weave a given quantity of yard into cloth. The

hand-loom weavers, as a matter of fact, continued to require the same time as before; but for all that ... one hour of their labour represented after the change only half an hour's social labour ..." (Marx, 1974a:47). But, second, even if socially-necessary in the above sense, an expenditure of labour will not count as abstract-general unless it is also socially-useful. As Marx spells out clearly in *Capital*, just as commodities must first "... show that they are use-values before they can be realised as values", so also the labour they represent 'counts effectively' as social labour "... only insofar as it is spent in a form that is useful for others. (And) whether that labour is useful for others, can be proved only by the act of exchange" (Marx, 1974a:89).

Marx's argument might thus be summarised by saying that the socialness of work is determined not by the quantity of labour expended, but rather by the quantity which would have to be expended under 'normal conditions' to produce that portion of output actually sold. Denote this latter amount as $s^*(\cdot)$. For some agents, presumably, $s(a)$ and $s^*(a)$ will coincide, whence $\phi((x(a))) = s(a)$. Yet in a commodity economy where order asserts itself only out of 'apparent lawless irregularity' there is no guarantee of this. At any one time, a significant minority of agents, say, $A' \subset A$ will not be using the dominant technology, or will have produced in excess of what the market can bear, or indeed both. Thus, for a in A' ,

$$\phi((x(a))) = s^*(a) < s(a).$$

The moral of the simple-labour story is thus that the uniform distribution of the same 'simple' faculties over a space of private agents is quite capable of generating a distribution of abstract general labour which is anything but uniform. For Marx, the expenditure of labour *per se* is not a sufficient statistic for socialness.

'More Complicated labours'

It is clear that the processes outlined above are seen by Marx as those at work in a space of more general dimensions; so that in a commodity economy where labours of more 'complex' structure are used alongside simple labour to produce commodities, one is tempted to say that there, too, socialness is measured relative to the 'expenditure of labour' which is strictly required. But to do so is an abuse of language: 'expenditure of labour' seems to have no meaning in such a world where different skill-classes of work are performed, each one characterised by its own distinct physiology. Otherwise put, different kinds of simple, unskilled work can reasonably be seen as 'mere organs' of the same labour (see Marx, 1971:30); but work of a 'more complicated' variety cannot be so viewed. The vision is rather one of clusters or families of 'organs', each of which comprising labours "... of greater intensity and specific gravity ... (thus) rising above the general (i.e. 'simple') level" (*ibid*, p.31).

It is self-evident to Marx that skilled labour, because of its greater physiological complexity, must somehow 'count' more heavily unit for unit than simple labour: "... a given quantity of skilled being considered equal to a greater quantity of simple labour" (Marx, 1974:51). Let the function

$$\lambda : J \rightarrow [1, \rightarrow]$$

such that $\lambda(\cdot)$ is constant on each of the skill-classes $\{J^k\}_{k=1,2,\dots}$ and

$$\lambda(j) = 1 \text{ for all } j \text{ in } J^s$$

define the per-unit simple-labour equivalent of each of the various types of work. Here, then, 'simple' labours, labours which belong to the J^s -classes of activity, form the social standard against which other, more 'complicated', activities are to be measured. Denote as $(\lambda_1, \lambda_2, \dots, \lambda_k, \dots)$, its image set, and, analogous to **6.2** above, let the J -list of numbers $(s^*(j, a))$ denote the quantities of the different types of labour that the a^{th} agent would

have to expend under 'normal conditions' to produce that part of his output actually sold. Then the socialness of the typical activity $x(a)$ is given by

$$\sum_{k \in K} \sum_{j \in J} \lambda_k s^*(j, a).$$

For those agents whose work is socially-necessary and products socially-useful, formula 2.2.2 resolves itself into a weighted sum of labours actually expended, *vis*,

$$\sum_{k \in K} \sum_{j \in J} \lambda_k x(j, .)$$

The 'Abstraction' of Labour

One should emphasise again that the reduction of skilled labours into simple-labour equivalents is not in Marx's view synonymous with the transformation of concrete labours into abstract-general; rather the former process is seen by Marx as subsumed by the latter. A convincing theory of the latter would nevertheless seem to require an explanation as to how the former is thereby subsumed - that is to say, how the multipliers $(\lambda_k)_{k=1, 2, \dots}$ are in fact determined. Yet the matter is dismissed by Marx in the space of a paragraph, apparently, 'in the interests of simplification' (see Marx, 1976:135). A cynic might infer from this that Marx did not really know how the socialness of skilled labours resolves into multiples of simple labour as their measure. It becomes clear later in *Capital*, however, that Marx felt the object of his enquiry did not require him to know. The argument seems to be that in an economy where commodity production has become the rule rather than the exception, the concept of skilled labour itself becomes superfluous.

In its formative stages bourgeois society merely appropriates existing methods of production, merely "... reproduc(ing) the old division of labour with (all) its ossified peculiarities" under which "... each man is bound hand and foot for life to a single specialised operation". And "...as long as handicrafts and manufacture form the universal basis of social production, the subjection of the producer to a single branch ... is a

necessary aspect of the process It is on that basis that each separate branch of production acquires its technically appropriate shape ... and slowly perfects it. Then, as soon as a particular degree of maturity has been reached, it rapidly crystallises. Once this has happened, the only thing that here and there gives rise to a change ... is the gradual alteration of the instruments of labour. But their form, too, once it has been definitively laid down by experience, undergoes a process of petrification, as is proved by their frequent transmission from one generation to another, unaltered, through thousands of years” (Marx, 1976:614-617).

Such a state of affairs cannot persist, however. The characteristic inflexibility of traditional manufacture is singularly unsuited to a system of production driven by ‘ ... inherent laws (which) impose themselves only as the mean of apparently lawless irregularities that compensate one another” (Marx, 1974a:104). Rather “... the possibility of varying labour ... (the) fluidity of functions and mobility of the worker in all directions ... must [in the commodity economy] become ... (the) general law of social production” (Marx, 1974a:104). Variation in labour, in response to variation in demand, “..may possibly not take place without friction, but take place it must” (Marx, 1974a:51).

Modern industry, Marx argues, develops in accord with this need for fluidity. For, despite its apparent complexity, skim the surface and one sees nothing “... other than the *constant reappearance of the same simple mechanical processes*” thus making it possible to “... incessantly throw masses of capital and of workers from one branch of production to another” (Marx, 1976:617-618; my emphasis). It is not merely, then, that one is able to view different kinds of labour in a commodity economy as 'organs of the collective labourer' (Marx, 1976), but rather that all 'organs' have the same 'simple' physiological structure. Work is effectively stripped of distinctive content. The problem of assigning weight to skilled labour therefore does not arise: the skill-categories $\{J^k\}_{k=1,2,\dots;k \neq s}$ in a mature commodity economy, according to Marx, are all empty.

As I shall want to argue later, Marx has other stories to tell. But particular stress is laid on the characteristic dynamic of 'large-scale industry': replacing man with machine,

craftwork with detail labour; emptying work of particular content and thus rendering its socialness *pro rata* measurable in units of simple labour-time. Such a system of measure is therefore "... by no means simply the conceptual resultant of a variety of concrete types of labours. (Rather) indifference towards specific labours corresponds to a form of society in which individuals can with ease transfer from one labour to another" (Marx, 1973:105).

Marx thus claims that the abstraction of labour has a 'practical truth' in an economy dominated by mass-production methods (see Marx, *ibid*). And so it does on the shop-floor. Pratten (1980) reports, for example, that in the modern pin factory the constituent elements of the production process have been trivialised to such an extent that jobs are actually rotated (see also Braverman, 1974). But the other side of this particular coin is the growth of a technocracy that designs, implements and modifies the elaborate subdivision of work in the factory. Moreover, the sophisticated technologies employed derive from a scientific community split into increasingly specialised areas of knowledge. So, it turns out in the age of machinefactory the traditional distinction between skilled and unskilled labour (and between skilled labours of different types) merely reasserts itself in a new form. (On this, see, for example, Williams, 1998:193).

But perhaps Marx had (or should have had) a different kind of versatility in mind. Without disputing the existence of skilled labour, Gleicher (1983) argues that Marx's abstraction is nevertheless valid because modern technology allows the deployment of any one category of worker across a wide range of industries. So whilst Gleicher would not want to claim that, say, the shop-floor worker and the management accountant are perfect substitutes for one another, both are equally at home in either the car industry or Pratten's pin factory, and in other branches of production besides. "Abstract labour", he writes, "... is the subjective activity of producing use-value that is not specific to the production of any single use-value, but which, to the contrary, represents the possibility of producing a wide variety of use-values ... (it is) in other words ... labour that has become independent of, and hence homogeneous across various use-values" (Gleicher, 1983:107; in a similar vein, see Lee, 1993).

Gleicher claims to put the history back into Marx's value theory. But, if so, at the cost of an exceedingly imprecise formulation. 'Mechanisation', he argues, 'deepens' the abstraction of labour (*ibid*, p.117). But how 'deep' must the abstraction be - how many different industries must an occupation range over - for it to count as abstract labour? How does one deal within this framework with different degrees of 'deepness', or with those exceptions to his stylised rule - those jobs specific to particular industries? And what of traditional crafts like that of the blacksmith, for example, whose 'subjective activity' has always 'represented the possibility of producing a wide variety of use-values'? Gleicher does not say.

Gleicher's contribution is only one of many variations on the theme that modern capitalism somehow 'perfects' the versatility of human labour. Elson, for example: "...there is a potentially vast range of tasks that any human being can undertake ... but only with industrialisation does the fluidity of labour become immediately apparent" (1979:128). Or, again, Albritton: "...human labour is always abstract as opposed to the labour of bees ... in ... that it is not pre-programmed and can produce many different things. But this quality of abstractness is only perfected under the regime of capital" (1984:164). Even for Rubin "... only on the basis of commodity production ... characterised by ... (the) mass transfer of individuals from one activity to another, and indifference of individuals towards the concrete form of labour, is it possible to develop the homogeneous character of all working operations as forms of human labour in general". The fact remains, however, that the 'regime of capital' has not 'perfected' any of these things. As Itoh now reluctantly admits, the 'factual tendency' to which the labour abstraction thesis appeals has palpably failed to materialise (1987:49).

6.4 Measure for Measure

"Beginnings are always difficult in all sciences", Marx warns in the preface to *Capital*; "...[t]he understanding of the first chapter, especially ... the analysis of commodities, will therefore present the greatest difficulty" (1976:89). As a concession to the reader,

however, Marx promises to 'popularise as far as possible' the analysis of substance and magnitude of value (1974a:18).

The story Marx tells is of the market acting as a screen or filter, extracting socialness signals from an inherently noisy environment: sifting labours which count as abstract-general from those that do not. But then what fraction of the total social labour is attributable to any given activity? It is here that Marx 'popularises'.

Instead of dealing directly with the transformation of concrete into abstract labour, concrete labours are first reduced 'in the interests of simplification' to varieties of simple, unskilled labours. Such a device appears to afford a certain expositional clarity insofar as the signals emitted by different kinds of work may then be regarded as having identical unit strength. But as the preceding discussion has shown, the theory has no general validity: the simple-labour parable simply does not generalise.

A more convincing line of argument opens up when one substitutes for the spurious physiological equivalence of the labour-abstraction thesis the social equating of activities implicit in the exchange of commodity-products. Just such a substitution is spelt out by Marx in the following passage: "... when we bring the products of our labour into relation with each other as values, it is not because we see in these articles the material receptacles of homogeneous human labour. Quite the contrary: whenever by an exchange we equate as values our different products, by that very act we also equate as human labour the different kinds of labour expended upon them" (1974a:78; see also p.51).

Marx could hardly be more explicit. Suppose $y(A) \subset \mathbb{R}_+^M$ denotes the product vectors corresponding to the set $x(A)$ of activities, and E_y a binary relation [graph $G(E_y)$] on $y(A)$ such that $(y(a), y(a')) \in G(E_y)$ signifies that ownership of $y(a)$ can be converted into ownership of $y(a')$ by executing the appropriate sequence of transactions. (Of course, any given $y(a)$ may stand in this relation to many $y(a')$'s). Denote as $E_y(v)$, $v = 1, 2, \dots$, the subsets of $y(A)$ thus generated: intuitively, product vectors in some $E_y(v)$ are 'value-

equivalents'. Then an implicit classification of $x(A)$ is given by the formula

$$E_x(v) = \{x(a) \text{ such that } y(a) \in E_y(v)\}.$$

In this way an 'equating' relation on the product space induces an 'equating' relation on the space of activities (see Krause, 1982; also Eldred and Hanlon, 1981). There can be little doubt that references in Marx to 'socially-equivalent labours' or to equal magnitudes of 'social labour' are to be understood in the sense of the above rather than as equal expenditures of socially-useful labour-time. And yet the concept of equivalence of itself affords no measure of the *difference* between activities of *unequal* social content -which would explain why Marx is ultimately unable to make the decisive break with the labour-time formulations of the classical-Ricardian school.

The break is all but made, however. The equating Marx has in mind has little in common with that which takes place between essentially self-reliant homesteaders haggling over the price of horse-flesh (c.f. Menger, 1950). Certainly the 'equating of products as values' presupposes '...the total isolation of ... private interest, but more than this the all-round dependence of producers on one another'. Consequently "... each must exchange, not only in order to take part in the general productive capacity but also in order to transform his own product into his own subsistence ... the pressure of general demand and supply thus mediating the connection between mutually indifferent persons" (Marx, 1973:158; translation slightly modified). The commodity and, more particularly, its value-form therefore constitutes the *modus vivendi* or 'cell-form' of economic and social reproduction and, as such, "... sweats money from every pore" (Marx, 1974:19 and 114; see also 4 above).

It is implicit in Marx's characterisation of a money-using commodity economy that the corresponding value relation is both complete (meaning every element of $y(A)$ appears somewhere in the graph of E_y) and transitive [i.e. if $(y(a), y(a'))$ and $(y(a'), y(a''))$ both in $G(E_y)$, then so also is $(y(a), y(a''))$] - in contrast to the barter of occasional surpluses between relatively self-sufficient communities, which will certainly not have the first

property, and almost certainly not the second (see Marx, 1971:50). Of special significance here, however, is that money affords a numerical representation of the commodity-product's social attributes: it is not merely that products acquire social status (and are conceived of as such) but that their socialness expresses itself in measurable fashion.

Suppose the m^{th} product serves as money. Denote as $y^{\sim}(a)$ the product vector of the a^{th} agent with the m^{th} component deleted, and $\varphi^{\sim}(\cdot)$ as its money equivalent. (There is no need here to consider how the magnitude of this money equivalent is determined.) Then the money equivalent of $y(a)$ is given by

$$\varphi(\cdot) = \varphi^{\sim}(y(a)) + y_m(a).$$

Likewise, for any collection V of product vectors in the power set Y of $y(A)$ one has

$$\varphi(V) = \sum_{y(a) \in V} \varphi(y(a))$$

It is the relative magnitudes of these numbers rather than absolute size which is of significance, however. With no loss of generality, therefore, one may define a (probability) measure space of products,

$(y(A), Y, \varphi^*)$, according to the formula

$$\varphi^*(V) = \varphi(V) \cdot [\varphi(y(A))]^{-1}$$

External and Immanent Measure

So it is that value appears in the form of a numerical function φ^* defined on the product space, thus assuming "... the fantastic form of a relation between things" (Marx, 1974a:77). But this is only the apparent or external measure of value. Because the product space is itself the image of a measurable mapping, say, f , from activities to

outputs so that every $V \in Y$ corresponds to some $U \in X$ - the product measure φ^* induces a measure on the space of work. To be more explicit, the composition

φ^*f

given by the formula

$\varphi^* [f(U)]$

defines a probability measure

$\mu : X \rightarrow [0,1]$.

One can therefore say that labour is the measure of value in the sense that a measure of the socialness of work is immanent in the value-form of the commodity-product (see Marx, 1972:133).

6.5 Concluding Remarks

"A commodity appears, at first sight, a very trivial thing and easily understood ... So far as it is a value in use there is nothing mysterious about it, whether considered as a thing capable of satisfying human wants or as a product of human labour: it is clear as noon-day that man by his industry changes the forms of the materials furnished by nature, in such a way as to make them useful to him. The form of wood, for instance, is altered by making a table out of it. Yet, for all that, the table continues to be that common, everyday thing, wood. But as soon as it steps forth as a commodity it is changed into something transcendent: it not only stands with its feet on the ground, but, in relation to all other commodities, it stands on its head and evolves out of its wooden brain grotesque ideas, far more wonderful than 'table-turning' ever was ... Whence, then, arises the enigmatical character of the labour-product as soon as it assumes the form of commodities?" (Marx, 1974a:76; translation slightly modified).

It is important to recognise that Marx gives two rather different answers to this question, though without making any clear distinction. The first is that the commodity-form of the product (and more particularly the value-form of the commodity) has its roots in the way that work is structured or socialised in a commodity economy. Allusions to 'social labour' in this context are thus understood as to an *a priori* restriction upon the way that producers are able to associate with one another (see 5 above).

It is more usual, however, to read into 'social labour' a meaning which preserves a certain continuity with classical theory. The story usually told is that although the value-substance should not be confused with work in its everyday sense, one can nevertheless think of quantities of socially-modified labour as existing prior to and thence determining the structure of prices in quasi-Newtonian fashion. Criticisms of this approach go back a long way (see, for example, Bohm-Bawerk, 1962) as do the critics of the critics, who claim that Bohm-Bawerk *et al* are just not *sympatico* with Marx's aims and methods (see, for example, Kay, 1979). All of which may be true. And yet, as 6.3 above demonstrates, the central thrust of the critique retains its force: two hours of one type of useful labour plus two hours of another does not make four hours abstract-general; indeed, in this context, two plus two does not seem to make any sense at all.

Despite the compromises with logic and the historical record that the labour abstraction thesis entails, proponents claim that such is the price one must pay if references to abstract general labour are not to degenerate into 'empty rhetorical gestures' (Clarke, 1989:135). But once 'social substance' is properly understood as quality rather than quantity - as the way in which work is organised in a commodity economy rather than as the quantity of work itself - it is natural to interpret the quantity of the substance as a measure on the space of work induced by a measure on the product space (see 6.4 above). To say thus that value acquires magnitude through the relation between commodity-products is not the same as saying that commodity-producing labour only acquires its specific social character at this point. In fact, to think that the two statements are synonymous is to confuse the property of socialness in a commodity economy with its

numerical representation.

This last point is crucial for a proper understanding of Marx's critique of political economy and of the system it represents. As Mohun puts it, '...[m]arket processes of exchange commensurate commodities, and hence *a posteriori* commensurate the labour-times objectified in their production' (1994:405). Indeed, in regard to the constituting of abstract general labour, this is precisely the idea defended above (6.4). But to argue, as Mohun seems to do, that this and its contrast with concrete-useful labour is all that needs to be said in regard to Marx's value-theoretic innovation (in a similar vein, see also Williams, 1991:191), is to do violence to the richness of Marx's thought in relation to that of the value-moderns (but see also Mohun, 2000:113). To so argue, in fact, amounts to what Likikijomboon (1995:73) refers to as a 'conceptual collapse' of the 'paired categories of use-value and value, concrete labour and abstract labour, individual labour and social labour...'. One should also note, in passing, that in equating abstract labour with the value of net output, Mohun's 're-(in)statement' of Marx's theory has more in common with the Smithian view that it is only labour-for-others which is rendered abstract, whereas for Marx it is clearly labour *tout court* in a commodity society which needs to be considered in this light (Marx, 1973:169). Mohun's approach effectively domesticates that labour which is not responsible for net output but which merely reproduces itself - a strategy which, while making political-economic sense (and hence the Smithian connection), would make a nonsense of Marx's critique.

Yet Likikijomboon's attempt at a less attenuated reconstruction of Marx's value-formulae, and similarly that of the like-minded Lee (1993), ultimately instantiate a more complex form of political economy rather than the transcendence of the political-economic itself. In these approaches, to be sure, the different forms of labour - the individual, the social, the homogeneous and the abstract, *etc* - are more carefully articulated than elsewhere. But still, labour as such remains the presupposition, the unthought, of these studies. Marx, on the contrary, wants to argue (and however inconsistently at times) that labour *per se* is always already a social determination. This aspect of Marx's value-project is further considered below, first, in the light of his self-

styled 'materialist conception of history' (7) and, then, in relation to the formative influence of German idealist philosophy (8).

7. RETHINKING THE MATERIALIST CONCEPTION: MARX'S MATERIALISM AS PHILOSOPHICAL ANTHROPOLOGY

7.1 Introduction

Any fool can make history, according to Oscar Wilde, but it takes genius to write it. For Hegel also the making of history requires no special skills: here again fools make history, though for Hegel they become less foolish in the process (see **8.2** below).

Hegel's theory of history in turn seems to anticipate Marx's writing of it, for, according to the conventional wisdom, Marx's historiography gets less foolish as his thought matures. Around 1845, so the story goes, Marx casts aside the philosophical anthropology that infects his early work and substitutes for it the historical-materialist (HM) problematic: the theory of history as a 'process without a subject' (see Althusser, 1972).

Althusser may be right in stressing some discontinuity in Marx's thought around the mid-1840s, but, as I will want to argue below, Marx's anthropological-humanist concerns do not end with his turn towards historical materialism; nor for the sake of logical consistency should they have done so. It is the contention of this chapter that a distinctive Marxist anthropology not only survives the onset of full-blown historical materialism but is refined and amplified by it.

Of course, the idea that certain themes in Marx's early work inform his later projects is hardly novel (see, for example, Arthur, 1986; Cohen, 1988, esp. chapter 8; Kain, 1982; Mezaros, 1975; Nielsen, 1989; Peffer, 1989; Sayers, 1998). However, the aforementioned studies rarely dwell as I do below on the question as to whether the continuity in Marx is a logical one or not.

This chapter is organised as follows. Section **7.2** lays the conceptual foundation for much of the subsequent work by reinterpreting the key HM constructs as projections onto the space of material possibilities. In so doing, I borrow from **5.2** above, in the process

placing the concepts developed there in an explicitly historical materialist register. Section 7.3 deals in more or less general fashion with what I shall call a mature Marxist anthropology. 'Maturity' here is taken to mean goodness of fit relative to core HM principles, which is not at all the same thing as emphasising Marx's later works at the expense of his earlier ones. To this end 7.3 outlines what it is that a consistent historical materialist may and may not say in regard to 'human essence'. Section 7.4 then considers Marx's philosophical anthropology in the specific context of commodity-economic institutions.

7.2 Forces and Relations

The anthropological question surfaces early in Marx's career in his first extensive postdoctoral study, the *Economic and Philosophical Manuscripts* of 1844. Central to the *Manuscripts* is the idea that existing social circumstances somehow preclude the realisation of a fully human way of life. Here, as elsewhere, the anthropological problem is to fill out Marx's conception of 'fully human', and thus to furnish the benchmark against which less adequate forms of existence may be measured.

In the *Manuscripts*, however, the anthropology is taken to have explanatory as well as evaluative power. According to the early Marx it is the purpose of history to bring 'man' to the point of realising his truly human capacities, of 'developing' and 'preparing' him to the point where his existence need no longer compromise his 'essential nature' (Marx, 1977a:105;75). This is Marx's brief flirtation with what might be called historical humanism.

But only a short time later and Marx is theorising the historical process somewhat differently. Now it is the development of man as bearer of 'productive forces' rather than the development of man as such that gives history its 'shape', its 'coherence' (Marx, 1977b:192). It is not that Marx no longer theorises history as promoting human development, or that such development can no longer be well-defined. It is rather that in Marx's thinking subsequent to 1844, insofar as the historical process tends (eventually) to

humanise, it does so fortuitously: humanism is no longer taken to be its purpose, its organising principle. Historical humanism gives way in Marx to historical materialism: now the broad contours of history, the procession of socio-economic forms together with their superstructures, are to be explained relative to the development of the productive forces, rather than by the presumption that each successive stage in the sequence brings a true humanity ever closer (Marx, 1977b:192-193; 1971:20-22).

In G.A. Cohen's seminal reconstruction of HM doctrine the concept of productive forces is rendered as an itemised list: so much labour-power, so many machines, quantities of raw materials, *etc.*, items "... unified by the fact that each is, in a wide sense, used by producing agents to make products" (Cohen, 1978:32). But Cohen's inventory-theoretic approach is not the only way of describing productive potential. For the purposes of this chapter it is better represented directly, *viz.*, as the spread of possible outcomes associated with the physical and intellectual resources at a society's disposal. In due course, the dual concept of social relations of production will be treated analogously.

Productive Forces

To fix ideas, consider a finite set A of individuals, an activity space R^n , and a map

$$f: A \rightarrow R^n$$

which designates the flows of materials and services to and from each of the individuals.

Inputs and outputs are distinguished by negative and positive sign respectively.

Call $f(a)$ an *activity*, and f a *state of the economy*.

Put simply, the productive forces of a society are here to be defined by those states which it is humanly possible for it to reach. Each satisfies, no more and no less, what Marx refers to as the 'nature-imposed conditions of human existence' (Marx, 1974a:179). One such condition is that each individual must have the intellectual capacity necessary to carry out the activity prescribed under f . Let a map T of A into the subsets of R^n describe

the technologically-feasible activities for each individual, and T' the set of technology-compatible states. Then to reasonably describe some f as humanly possible implies

$$(7.2.1) \quad f \in T'.$$

Such a description should also surely imply that the resource requirements of agents taken together are compatible. (Of course (7.2.1) of itself does not ensure this). Denote as L those states for which the sequence $(f(a))_A$ belongs to the linear manifold

$$\{(f(a))_A \text{ such that } \sum_A f(a) = 0\}.$$

The compatibility of activities is thus defined as

$$7.2.2 \quad f \in L$$

The intersection of T' and L then describes a society's productive potential and will be denoted F . I will call F the *space of the humanly possible*.

Social Relations of Production

The space F describes what a society is humanly capable of achieving, given its members' physical and intellectual capacities. However, what is humanly possible may not always be socially possible. This contrast is of course central to Marx's materialist history, according to which there comes a time in the life of all 'antagonistic' social forms when, rather than developing the productive forces, existing relations of production only serve to inhibit or 'fetter' their further development (and/or use). There then follows a period of social unrest, culminating in a realignment of forces and relations through the transformation of the latter (Marx, 1971:20-22).

But the contrast between forces and relations also carries an anthropological charge: for to say that 'antagonistic' relations of production somehow impede the productive forces is

to admit that those same relations place restriction on what has already been defined as the humanly possible. More of this later. For the moment, however, one may say that the social relations of production, like the productive forces, define a certain space of material possibilities. Denote this space as

$$S \subset \mathbb{R}^n.$$

The relation between F and S will play a key role in what follows.

7.3 Towards a Mature Marxist Anthropology

By 'mature' anthropology I mean a non-trivial conception of human nature which is demonstrably consistent with core historical-materialist principles. In Marx's writing before 1845 the consistency problem does not arise, simply because in those early works it is as if history and the humanist ideal are made for one another: "... communism, as fully developed naturalism, equals humanism, ... is the riddle of history solved, and it knows itself to be this solution" (Marx, 1977a:97). Subsequently, however, no such complicity is assumed, and the humanism - now stripped of its explanatory pretensions - and the new non-evaluative materialist history are allowed to follow a more or less separate development.

But is there room in a coherent post-HM Marxism for Marx's humanist concerns? For central to HM doctrine is the idea that, in continually reworking the physical environment, mankind itself undergoes fundamental change: in transforming the external world, "... producers change with it ... transforming and developing themselves ... forming new powers and new conceptions, new modes of intercourse and new speech" (Marx, 1973:494; see also Marx, 1974a:165 and 177); and this being so, where is the human essence that an anthropology would purport to describe? Humanist concerns, properly grounded, presuppose some anthropological benchmark telling what is truly human and what is not. Historical materialism tells instead of a physiological shell periodically emptied of all content and refilled. This, though an anthropology of sorts,

can serve no humanist purpose, for if human essence is reduced in this way to some "... internal dumb generality which naturally unites the many individuals' (Marx, 1968:29) there can be no 'loss of humanity' and thus no need for its subsequent 'recovery'. It is presumably for this reason that Althusser reads what he calls a 'theoretical anti-humanism' into the historical-materialist texts.

A False Trail

Ironically, though, Marx gives one of his most graphic descriptions of the fully human individual in a seminal HM work, *The German Ideology*. In pre-communist society, he writes, "... each man has a particular, exclusive sphere of activity ... forced upon him and from which he cannot escape. He is a hunter, a fisherman, a shepherd, or a critical critic, and must remain so if he does not want to lose his means of livelihood"

(Marx, 1977b:169). Marx then contrasts this with a communist lifestyle in which "...nobody has one exclusive sphere of activity but [rather] each can become accomplished in any branch he wishes ... [where] society regulates the general production and thus makes it possible for me to do one thing today and another tomorrow, to hunt in the morning, fish in the afternoon, rear cattle in the evening, criticise after dinner, just as I have a mind, without ever becoming hunter, fisherman, cowherd, or critic" (*ibid.*). Here for Marx the exercise of one's powers in a wealth of different ways, and '...just as I have a mind', is quintessentially human.

In *Capital*, some twenty years later, this vision of the fully human individual, as one who is able to determine and carry out a diversity of activities, is still recognisable, though now somewhat modified. Now 'I' can do 'just as I have a mind', but only after certain prerequisites have been met: for "... just as the savage must wrestle with Nature to satisfy his wants, to maintain and reproduce life, so must civilised man, and he must do so in all social formations and under all possible modes of production" (Marx, 1974b:820). Of course, there is a world of difference between "... associated producers, rationally regulating their interchange with nature, bringing it under their common control" and, as in earlier forms of association, their "... being ruled by [that interchange] as [if] by the

blind forces of Nature". But even for 'fully socialised man' there nevertheless remains a 'realm of necessity', a realm of 'mundane considerations'. Only beyond this "... begins that development of human energy which is an end in itself, the true realm of freedom ... [which] in the very nature of things ... lies beyond the sphere of actual material production" (*ibid.*).

For many writers these qualifications introduced by Marx into the later works signal a welcome switch from the rather Utopian outlook found in the *German Ideology* (and earlier texts) to one which sees the proper exercise of man's fully human powers in the 'realm of freedom' as necessarily founded on a well-stocked yet time-economising 'realm of necessity'. Arthur, for example, writes of a growing awareness in Marx of the '... recalcitrance of nature to human efforts and the problems to which this gives rise' (1986:134). In a similar vein Peffer contrasts the somewhat 'speculative' and 'philosophical' approach of the 'maturation period' with the 'more realistic', 'more empirical' perspective of the later years (Peffer, 1989:66 and 75).

In fact, though, both the Marx-passages reproduced above - together spanning the early HM years right through to full 'maturity' - display an empiricism of the worst kind. In particular, attitudes (understandably) displayed by bourgeois man towards the division of labour and to the contrast between work and leisure are here taken to be quintessentially human attitudes. One may well ask how Marx knows that the 'realm of necessity' can never allow sufficient room for the all-round development which is supposed to characterise the fully human form of individuality (FHI); or why FHI should in any case be characterised by an all-round development rather than by, say, the deliberate refinement of a more selective group of skills (see Cohen, 1988, chapter 8). The picture Marx paints of the fully human individual is of one who, whilst finding some satisfaction in a communally regulated 'realm of necessity', only really completes herself in some personal space outside of 'material production'. It is not that such a picture is somehow controversial in regard to this or that particular detail. It is rather that historical materialism, consistently adhered to, admits no picture of FHI; for, given historical materialism, the non-relational characteristics of such an individual are fundamentally

unknowable.

The Liberation of Form

For a consistent historical materialist, then, there is no interior capacity, no power or cluster of powers latent in every individual, no level of personal development which, when fully realised, can be taken as definitive of FHI. However others may choose to think of human essence, for a strict historical materialist it cannot be regarded as a distributive property. This of itself does not render the concept entirely vacuous. But to acquire meaning in a HM context human essence would then have to be some kind of collective attribute. Otherwise expressed, if there is some power that a historical materialist may reasonably describe as essentially human, then it must be a collective power.

This is exactly the position that Marx takes in the *Theses on Feuerbach*. Here in this important HM text the concept of human essence is not rejected *per se* but only in its traditional reductive formulation: '... the human essence', he writes, '... is no abstraction inherent in each single individual. In its reality it is the ensemble of the social relations' (Marx, 1968:29). Relative to Feuerbachian doctrine, of course, this amounts to a radical departure. In terms of his own intellectual development, however, Marx here merely affirms and clarifies the philosophical anthropology of the earlier *Paris Manuscripts*.

It is well-known that much of the *Manuscripts* is concerned with the loss of humanity and its subsequent recovery through the supercession of capitalist relations of production. Less well appreciated, however, is the extent to which in these manuscripts Marx defines a properly human existence in purely collective terms. Central to this definition is the concept of *species-being*; so central, in fact, that all manifestations of loss of humanity - the alienation from product, from fellow producer, and from the activity of production itself - are ultimately traced back to the estrangement of the species.

Marx's reference to species-character is in part recognition of man's apparently social

nature. Like many other animal-types, man both co-operates within the species and with the rest of nature in order to live: one may therefore say that man is social in this double sense. However, species-being here is supposed to convey more than mere socialness – perhaps, even, to transcend the social (see 8 below). Unlike the rest of nature man engages in 'conscious life-activity': life-activity for man '... is not a determination with which he directly merges' (Marx, 1977a:75). More particularly, it is thus possible for man to reflect upon his sociality and the opportunities that it affords. Actions born of such reflection are variously described by Marx as 'free' or 'universal', and, arising as they do from a 'species-consciousness', may be said to constitute a state of 'species-being' (*op. cit.* and 8 below). Species-being, though, is for man the natural, the immanent, rather than the normal, state of affairs: for whilst man has the capacity for 'universal' or 'free' activity, it is only as and when he becomes fully human that the capacity for such activity is realised.

Despite their relatively early vintage, the *Paris Manuscripts*, constitute, when viewed from the standpoint of philosophical anthropology, Marx's most consistently mature work: for whilst in the later writings Marx's anti-essentialist, social-relational characterisation of a fully human existence is still present, it has to compete with the HM-problematical anthropology which instead tries to 'picture' the fully human individual. Nevertheless, where Marx does pursue the non-reductive line in later, post-1844 works the results are just as striking. So, for example, in the *German Ideology* of 1845-6 he writes of 'united individuals' appropriating a 'totality of productive forces' and thus achieving a 'complete and no longer restricted self-activity'; of '... the transformation of labour into self-activity (as) correspond(ing) to the transformation of the earlier limited intercourse into the intercourse of individuals a such' (Marx, 1977b:178). Or, again, in the 1857-8 *Grundrisse*, Marx characterises 'really free labour' as that "... of a subject controlling all the forces of nature in the production process"; it is "... control by the united individuals of their total production, a process located in their consciousness ... subsumed under them as a whole; for, once the limited bourgeois form is stripped away, what is wealth other than ... the full development of human mastery over the forces of nature ... the absolute working-out of (mankind's) creative potentialities, with no

presupposition other than previous historic development" (Marx, 1973:123-124; 159; 488).

In these almost identical formulations spanning a dozen years or so, a single theme predominates: as against the 'restricted' or 'limited' intercourse of earlier economic formations, and to which corresponds a 'restricted self-activity', the 'united individuals' that constitute a thoroughly humanised mankind would 'consciously' control 'all the forces of nature', would appropriate a 'totality of productive forces'. In a particularly striking phrase in *Capital*, Marx characterises a properly human existence in terms of 'freely associated' individuals (Marx, 1974a:84). Note that it is the association, not the individual, which is here qualified as free. But free from what? And in what sense are (pre-) existing forms of association limited?

Consider again the spaces F and S. Traditionally, the concepts of productive forces and relations of production are used to theorise the development of man as producer. Redefined as in the previous section, however, they together afford a simple yardstick of man's development as such. Recall that F describes a society's productive potential: loosely speaking, the choices that nature affords. In regard to Marx's theory of history, of course, the size of F and its variation over time are central. But in regard to the philosophical anthropology, the absolute size of F is of no relevance; it is rather the relation between F and S, the latter being the space on which social choice is actually defined, which is important.

There is of course a fairly obvious relation between the natural and social spaces as earlier defined. At best, society may only choose from those states that are humanly possible. One therefore has

$$(7.2.1) \quad S \subseteq F.$$

On the other hand, a moment's reflection would reveal that the converse inclusion need not hold. In tradition-based forms of economy, for example, in which people '... enter

into connection with one another only as individuals imprisoned within a certain definition, as feudal lord and vassal ... members of a cast ... or as members of an estate, etc.", the choices there are clearly made on a space much smaller than F (Marx, 1973:163). It is therefore the case that in these situations certain humanly possible states are somehow *a priori* excluded from social consideration; that is to say, one has

(7.2.2) $S \subset F$

As against the 'limited', 'restricted' form of existence just described, it is clear that a fully human existence, man acting as a 'subject controlling all the forces of nature', controlling a 'totality of productive forces', would require a merging of that which is humanly possible, *viz.*, F, with those opportunities which the actually existing form of association permits, *viz.*, S. A fully human existence would therefore require

7.2.3) $S = F$

The strict inclusion (7.2.2) then characterises situations in which man falls some way short of this.

In fact (7.2.2) characterises all those social forms which together constitute what Marx refers to as the 'prehistory of human society' (Marx, 1971:22). Thus 'prehistory' may be said to comprise a sequence $(S_t)_{t=1,2,\dots}$ of restrictions on the space of material possibilities, each one serving to identify a particular social formation. Of course, in this dynamic framework the space of material possibilities must itself be regarded as time-dependant also, so that in general one has

$F_t \neq F_{t'}, t \neq t'$,

and more particularly for a historical materialist, typically

$$F_{t'} \subset F_t, t > t'$$

Nevertheless, the fact remains for Marx that if t designates some epoch in 'prehistory' then axiomatically

$$S_t \subset F_t.$$

In sum, then, prehistory is characterised for Marx by the triumph of a crude and partial materialism over form of association; it is a world where social arrangements are driven by the brute force of the material: "... the hand-mill (giving) you society with the feudal lord, (and) the steam-mill ... society with the industrial capitalist"; a world in which people "... come into connection with one another only in determined ways" (Marx, 1977b:202; 1973:164). In contrast to this, human history begins as and when the form of association can be characterised by no particular subspace of material possibilities, that is, as and when

$$S = F.$$

It is in a real sense (and *pace* Cohen, 1978, Chapter 5) the liberation of form from content. Indeed, one may say that a properly human mode of existence only begins as and when form disengages from self-imposed material constraint and becomes self-determining.

7.4 The Anthropological Critique

At the heart of Marx's conception of properly human being is freedom as self-production rather than self-reproduction, freedom as a self-transformative process somehow brought under self-control. But how to cash out 'self-control' when it is not so much self as selves? Different writers reconfigure Marx's notion in different ways. So, for example, for Gould (1978) the 'capacity for freedom is the disposition to realise oneself through transformative activity' (172); or again, free individuals '..freely create their natures

through their activity' (172). For Gould, though, the social-relational dimension is not thereby suspended, for the 'activity...of an individual is always mediated by a certain form of social relations' (141). But with properly human being the social would take on a new meaning, for '..free individuals [would] constitute the community as their own creation' (128).

Forbes (1990) goes even further, however, wondering if, under these circumstances, the very idea of the social retains any purchase at all. Surely, he writes, '..communism [for Marx is] the transcendence of society' (213). 'Society is that condition where the action of men on one another has been a mysterious and uncontrollable process'. Surely, for individuals who associate freely, and thereby are "... no longer 'overawed and governed', society in the conventional sense ceases to exist" (211). In other words, the self-transformative activity that constitutes free individuality is an associative, rather than mere social, enterprise: "...in a real community...individuals obtain their freedom in and through their association" (214).

The Community of Labour

For Marx, it is precisely the self-production alluded to above that value, human activity constituted as labour, denies. Instead of community constituted through free association, value constitutes what Marx refers to as a 'community of labour' (1977a:95). Ostensibly, Marx's target here is a 'crude communism', a '..type of communism...[that] negates the personality of man in every sphere', one in which each and every person is 'levelled down' to labour, in which human being is thus reduced to mere resource. Yet Marx's real target soon becomes clear: for this 'levelling down' of human activity to labour, this constituting of a 'community of labour' is none other than the constituting of a 'universal capitalist' – "labour...[being] the category in which every person is thereby placed, and [placed relative to] capital as the acknowledged universality and power of the community" (*ibid*). For Marx, then, the significance of 'crude communism' is that it is at the same time a (literally) crude capitalism, a capitalism in which the immanent norms of bourgeois economy are imposed immediately, imposed without regard to the usual

mystifications and mediations, without regard, in other words, to its 'externally apparent forms of life' (1969:97). It is surely in this 'early Marx' context that some of the otherwise obscure comments of the 'mature' Marx need to be understood, and in particular, remarks that appear to identify value *as* labour (see, for example, Marx, 1969:197).

If 'crude communism' is for Marx the immediacy of commodity society, then (again for Marx) classical economy is this immediacy in thought and word. Petty's brutal (and unthought) reduction of human activity to labour, and, thence, its identification as mere instrument in the production of 'Publick' benefits, is quoted by Marx without comment (1969:356). Rather, Marx prefers to save his rejoinder for the final uncompromising voice, the summation, of this tradition: for Ricardo "...[n]ations are merely production-shops; man is a machine for consuming and producing; human life is a kind of capital; economic laws blindly rule the world. For Ricardo men are nothing" (1977a:48).

But still, Ricardo's scientific credentials are beyond question, his apparent 'ruthlessness' here a matter of 'scientific necessity', a testament to his 'scientific honesty' (Marx, 1969b:118). What is open to question, however, is the basis of this science, but not from within. Political economy, and *a fortiori* modern value theory, is the science of human activity as labour; labour is its presupposition. It cannot therefore think human activity as anything other than labour and yet remain true to itself. How Marx comes to think the unthought of political economy is further considered in 8 below.

7.5 Concluding Remarks

One may summarise as follows. In his early works, up to and including the *Paris Manuscripts* of 1844, Marx argues that insofar as (pre-)history has any purpose, it is to bring 'man' to the point of realising his human potential, of 'developing' and 'preparing' man to the point where his existence need no longer compromise his 'essential nature' (Marx, 1977a:105;75). Now, by 'essential nature' Marx has in mind something rather unusual. For the 'nature' to which Marx here refers is not some cluster of powers or capacities which inheres in each member of the human species but is rather a structural or

relational characteristic of the group *per se*. It is the capacity for what Marx calls 'species-being': the capacity for self-consciously associated action; for an activity mindful of others, and conceived of and executed as such.

The story usually told about Marx's subsequent intellectual development understandably focuses on a certain re-theorisation of the historical process. Increasingly, it is claimed, Marx comes to see the subject of history as the development of the productive forces (Cohen), or, again, as a process having no subject at all (Althusser). But, be that as it may, one should note that (*pace* Kain, 1982) the concept, if not the terminology, of species-being endures. Notwithstanding occasional lapses into a more speculative anthropology Marx continues to regard the self-consciously social as definitive of truly human action (although not now as driving the historical process).

One should also note, however, that the early anthropology endures not without significant change. Increasingly, and this too may be read as a sign of Marx's maturation, the early anthropology takes a materialist turn. In the later works the physical (as well as the metaphysical) characteristics of an authentic species-life are outlined. Using concepts central to the articulation of his theory of history, Marx moves towards a conception of species-life, and a fortiori its denial, as a material state of affairs.

It has been the aim of this chapter to clarify this movement and take further steps in the same direction. In so doing one places less emphasis on the Materialist Conception as 'objective' theorisation of events (in any case a now contentious project: see, for example, King and Howard, 1993; Wright, Levine and Sober, 1992); and more emphasis on its normative, hermeneutic implications. I will want to return to this theme in the next chapter.

8. VALUE AND FREEDOM

8.1 Introduction

I claim in my previous chapter above that Marx's value theory, far from bidding farewell to his earlier explicitly philosophical-anthropological concerns, is *inter alia* an attempt to place those concerns in a materialistic register - a register in which the delineation of free activity from the merely social no longer relies on an understanding of German idealist philosophy but may be read off more simply as contrasting spaces of material possibilities. Towards the end of that chapter I also press (but do not argue) for a more hermeneutic understanding of Marx's value-project. Yet it is not immediately clear how this is supposed to work. Superficially, these appear as mutually contradictory, incoherent aims - and they would be if by 'materialist register' is meant one which transcends (any) actor's understanding of events - a disenchanted or, better, de-contextualised version of events - and by 'hermeneutic' a characterisation which gives meaning or context pride of place.

The circle may be squared, however, if the role of judgement, of understanding, is itself taken to be essential to an adequate characterisation of specifically human activity. More precisely, if in Marx's later discourse his continuing talk of freedom, of emancipation, is to have any real purchase - if freedom is to mean more than a mere lifting of mathematical restriction or the uncaging of sentient creatures subject only to blind biological drives - then it cannot help but have a hermeneutic dimension; the activities of minded beings; cannot help but refer to the activities of deliberating, thoughtful animals; beings for whom the formulation of plans and their realisation is of the essence.

What I have to say below, then, is supposed to act a counterweight to the thought, perhaps encouraged by the analysis of the last chapter, that free activity is no more than a particular space of (mind-independent) material outcomes or dispositions; that it matters not for free individuality how such a disposition arises. What I want to stress is that the understanding and judgement of the actors themselves is already (at least putatively) built

into Marx's materialist conception. For Kant, of course, human freedom and the capacity for thought, the 'spontaneity of understanding', 'the mind's power of producing representations from itself', are inextricably linked (Kant, 1981:50-51). Otherwise expressed, for Kant, the possibility of human freedom arises from, and is internally related to, his characterisation of human being as a being rooted in interpretative activity. I will want to argue below that Marx's 'settling of accounts' with this tradition and his subsequent excursion into value theory and the critique of political economy is no bidding farewell to 'philosophical conscience' in favour of a value-free value-materialism - a brute naturalism which would in any case bid farewell to social theory *tout court* - but rather the extrusion of the above Kantian insight into the world of economy itself.

8.2 Thought as Freedom

According to Heidegger, the normal mode of human being is essentially non-conscious; it is only in the face of the occasional equipmental deficiency - of a problem arising in regard to the reproduction of our everyday practices - that we are forced to reconsider our being-in-the-world and thus see ourselves as subjects (Heidegger, 1962; Schwartz, 1998). Only in face of a breakdown in my non-conscious practices am I forced to situate myself in the world in such a way that I am not merely contained in it (Scruton, 1994:236). For Foucault also, it is problemization which accounts for the emergence of subjectivity and thought: "... for a domain of action, a behaviour, to enter the field of thought... it [must] lose its familiarity... [be] provoked by... difficulties around it" (Foucault, 1984:388). According to Foucault, it is precisely in problematizing a situation, "... in step[ping] back from a [particular] way of acting and reacting", that I make myself free (*ibid.*). Foucault here reminds us of a number of things: 1) that, for us moderns, freedom is not a customary station in life to which some (but not others) may aspire: we make ourselves free; 2) we do not make ourselves free once and for all: freedom needs to be made and then reproduced; freedom requires eternal vigilance, a permanent revolution, so to say. He also reminds us that this conception of freedom - freedom as internally related to modes of thought - we owe to Kant. But still, like Heidegger before him, Foucault's identification of thinking and freedom seems to trivialise the latter. So I begin to roast the

potatoes because that is how I always cook them. But my oven breaks down - which forces me to reflect that there are other ways of cooking. So I sauté the potatoes instead and, in the process, make myself free. For Kant, however, the relation between thought and freedom runs deeper than this.

Theoretical Reasoning and Autonomy

For Kant, in 'stepping back' à la Foucault, in making myself a subject of thought, far from setting myself apart from nature, I merely act in accordance with its laws, for, as a 'rational being', it is in my nature to form a 'conception' of those laws (Kant, 1990:1025). Moreover, I cannot help but see this conception as my conception. But suppose now I take a further step back and reflect upon how I form this conception or, better, how I form conceptions per se. Here, I problematize myself as a subject of thought, as thinking subject. Again, I do not set myself apart from nature but rather problematize its laws in regard to rational being. When I self-reflect in this way, however, when I attempt to recover the conditions of possibility of any form of rational being, my reasoning is for-itself rather than in-itself. It is not merely that I find the phenomenal world to be always and everywhere constituted through my synthesis of concept and intuition but rather that I am now using reason to judge what is, and what is not, reasonable. So, for example, I may speak of an all-encompassing purpose of which my being is expressive but, because I can have no intuition of an intelligence, which somehow enfolds my own, such talk, is unreasonable. Or, analogously, pure sense-impression, lacking concept, must be reasonably judged as pure nonsense. Reflection tells me that it is my synthetic activity of conjoining concept and intuition which is the real 'lawgiver of [phenomenal] nature' (Kant, 1981:126), and through this self-reflection I give this law to myself. Reason alone now tells me whether I have before me concept or mere 'idea'. My activity has become self-determining, self-legislating; now I have truly made myself a subject of thought. In this way I have, as McDowell (1994:114) puts it, come to 'take charge of my thinking'.

Kant wants to claim this self-reflection, this rational reconstruction of rational competence, as exemplary in regard to free activity. I am free not because I overcome

obstacles put in my path but because my activity has no other purpose than self-expression (Taylor, 1979). As Hegel puts it, 'in thinking I am free, because I am not in another' (cit. McDowell, 1994:44). Like all forms of 'autonomous' art-works, Kant's critique of pure reason has no purpose other than the laying bare of the logic or necessity immanent in all works of a certain type. But Kant's critique, like all 'autonomous' art, soon turns into auto-critique as it becomes clear that even the self-expression of the Kantian monological subject would fail without others capable of recognising it as such. Moreover, this 'autonomy', even when recognised for what it is, falls short of the freedom for which 'rational being' has the capacity. For although as autonomous artist I (or the critic) can give reasons as to why my work is true to my painterly, literary or philosophical self, the autonomous-artistic self (that which my work purports to represent, purports to express) is itself just posited, itself outside the circle of reasons. According to this 'autonomist' view of freedom, while I must concede, nay, demand, that I am judged according to the standards immanent in the nature of my work - standards which I explore and explicate in the course of my activity - to question whether it is right that I do the kind of work that I do, is precisely to deny my autonomy. In this way I put the kind of person that I am beyond reason. For Kant "...[e]verything in nature works according to laws. [But] only a rational being has the power to act according to his conception of laws i.e., according to principles, and thereby has he a will" (Kant, 1990:1025). Let us say, then, that I use this 'power to act according to principle', that I (literally) act 'wilfully'. Let us say also that the 'conception of laws' according to which I act is itself rational in the sense of conforming to the 'rules of engagement' which the nature of my work demands. But until I subject my (albeit 'authentic') wilfulness itself to the demands of reason my 'rational being' remains immanent. The autonomy which emerges from the pages of Kant's 1st *Critique* is fully defined according to an (internal) relation between self and work and, as such, cannot help but fail to explicate the concept of freedom. Put simply, my autonomy demands of me that I situate myself, but that self-positioning itself must here remain beyond reason. Kant senses this and feels compelled to move on.

Practical reason, Dependency and Freedom

According to Kant, "... rational nature is distinguished from the rest of nature by the fact that it sets itself an end." (Kant, 1990:1042). But when that end is a form of self-expression which expresses an autonomous self - a self just posited, so to say - then my apparent freedom merely consists in freeing myself from the demands made upon me (and upon my time) by others. I just posit this 'freedom' without asking whether these demands - whether any demands, in fact - may be warranted. Now, insofar as I am a 'dependent being', and thus one 'to whom imperatives apply' (*op. cit.* p.1027), in denying reason access to the question of the "... very relation of such beings ... of rational beings... to one another" (*op. cit.* p.1039), I deny my rational nature and thence the very basis of my freedom. Thus, in order to realise the freedom immanent in my rational being, it is imperative that I subject my will itself to reason; that I see myself as 'dependent being' and act accordingly. When I so act, I act according to free will; in a deep sense my actions have now become my own. Kant writes: "...Teleology considers nature as a kingdom of ends; morals regards a possible kingdom of ends as a kingdom of nature. In the former the kingdom of ends is a theoretical idea(!) for explaining what exists. In the latter it is a practical idea for bringing about what does not exist but can be made actual by our conduct, i.e., what can be actualised in accordance with this very idea" (*op. cit.* p.1042). According to the former ('teleological') way of thinking, then, a purpose or rationality is read into nature where none in fact exists (or, more precisely, where none can reasonably be shown to exist). For all I can know, this is a world devoid, a world empty, of purpose; this is the 'rest of nature'. But my world - the world of 'rational nature' - is constituted by purpose or by 'ends': by my purpose and by the purposes of others like me; and this is no 'theoretical idea' but 'fact'. When I recognise this 'fact' - my dependency on other rational beings - then I have grasped 'this very idea'. And bearing in mind 'this very idea' when I formulate my purposes makes my will 'good'. And when others act analogously, together we constitute a 'kingdom of ends' (Kant, 1990:1042).

Phenomenal Nature, the Nature of Spirit and Co-ordination

At first sight, Kant's demand that I reason about ends as well as means seems to lead to performative contradiction. Surely, to reason about ends is to question the purpose of my action - thus turning my 'ends' into means. Suppose I plan to take a bath, and, first, I reason instrumentally: should I take a cold bath or a hot bath? Should I use soap or not? Now suppose I reason about the 'end' itself: do I take the bath to cleanse myself or for the purposes of refreshment? Either way, I have turned the 'end' into a means. One must conclude, therefore, that either Kant's position is thoroughly incoherent or Kantian ends are not ends in the usual sense of the term.

To make sense of Kant's claim that I make myself free by reasoning about ends one must distinguish between the natural and the human-cultural world. In regard to the former my actions are doubly determined: first, my actions here are determined by the laws of nature and, second, my capacity to know those laws is also naturally circumscribed, though the synthesis of sensibility and concept. My 'freedom' here is merely to think and act self-consciously in accordance with natural law. In particular, for all that one knows the world of nature is devoid of purpose. The acknowledgement of this purposelessness is indeed the condition of possibility of modern thought and particularly modern science.

In contrast, the human-cultural world is a world filled with purpose and meaning: a world constituted by purpose and intent. According to the praxiological-hermeneutic tradition of Weber, Menger, von Mises *et al*, purpose or intent is all that is distinctively human: and thus to be purposive, to realise intent, is all that there is to freedom. From the Kantian perspective, however, this appears as a somewhat naïve, impoverished view of humanity; for to treat purpose as primitive is to see myself still as determined, as subject to (blind) natural law. Purposive being begs the questions: why do I intend this rather than that? How in a deep sense are my intents to be realised? As Taylor puts it, to purposefully act at all I have to think of myself as someone, and that someone is the being who holds dear the values that I do (Taylor, 1989). These values are, so to say, the second-order purposes

that constitute my first-order purposes or preferences. To be free, for Kant, seems to amount to no more and no less than reasoning about those values which condition my behaviour, and then acting in accordance with those reasons. Perhaps it amounts to this, then: do I want to be seen, and to see myself, as the kind of person that takes a bath?

It is clear that Kantian 'reasoning about ends' is reasoning about culture, if only because my values or 'ends' are clearly meaning- or culture-dependent. Kant, however, wants to disabuse us of the idea that culture hangs around our necks like the dead weight of (phenomenal) nature. We can of course regard our purposes as second nature, as reproducing and reproduced through some hegemonic cultural tradition, or through some self-moving succession of cultural traditions (Hegel), but the point for Kant is that we are not obliged so to do; indeed, for Kant we make ourselves free only insofar as we treat culture - the form of our dependency - as our product, and subject only to our reason(s). We cannot but act within the context of some cultural form; for without this context we would 1) lack the personality and thus the capacity to act at all, and 2) the means to somehow communicate and thus co-ordinate our intents. But the (phenomenal) laws that determine our purposive-rational actions without remainder need hold no sway over the form that our cultural products take. We are 'free' to ascribe any meaning we choose to our actions but only truly free insofar as that inscription is made in accordance with reason. In doing the latter, in treating culture - that which gives meaning to, and co-ordinates, our purposive-rational actions - as subject to reason rather than (phenomenal) law, we act in accordance with human nature and thus in the only way that is truly creative.

In sum, Kantian ends are not to be thought of as 'ends' or purposes in the ordinary sense of the term because Kantian ends are not concerned with the purposive refashioning of the phenomenal world but rather with the relations we enter into in so doing. Kant does not (indeed, cannot) put it this way. Rather, for Kant, I am a free only when I give myself reasons for acting - only when I self-legislate in respect of my purposes - reasons which somehow always already subsist within me. Yet Kant's monological way of putting things cannot help but draw on a deeper dialogical impulse. For by 'reason' Kant here

means not some justification for my 'ends' in terms of a yet more primitive purpose which I come to hold, but rather a reason which is supposed to convince anyone, whatever their purpose: my reasons, if they are to count as Kantian reasons at all, have to be your reasons. Kant cannot see (though it is immanent in what he says) that our purposes can cohere in the 'kingdom of ends' only insofar as our reasoning takes the form of a reasoning as to how they are to cohere, and thus also only insofar as our purposes are themselves constituted according to this logic. Reasoning about ends, properly interpreted, is thus reasoning about how our purposes are to be co-ordinated, and about how those purposes, in the process, may be fashioned.

8.3 Kant, Hegel, and the Idea of Freedom

Like any form of 'dependent being', then, my actions must be brought into conformity with those of others. Kant's 'rational being', however, requires more than this, if only because as rational being I have the capacity to form a conception of my dependency. Modern value theory, according to which my dependency may be (more or less) reasonably and innocently mediated *via* a commercial valuation of products, may be seen as one such conception. For Kant, however, modern value theory is a severely attenuated conception of rational dependency. One way of understanding Kant's moral theory is to say that commercial valuing is itself parasitic on a yet deeper form of valuing, a yet deeper form of rationality (c.f. his contrasting of 'price' and 'dignity'), according to which my capacity to participate in a system of commercial valuation, to realise myself as a subject of commerce, depends on me giving due respect to the valuing of others - which is no more and no less than I expect others to give to me. Kant's 'kingdom of ends', then, is no substitute for, or critique of, 'civil society', but rather its condition of possibility: to be a commercial subject I must first be a moral subject.

Yet Kant's theory ultimately leaves the realisation of such a possibility aporetic. As Kantian agent my freedom comes to depend on treating others as both means and ends. I have to become one of Rousseau's double-men (see Bernstein, 1995, chapter 4). For Kant, to truly be myself I have to be myself; and it is by no means clear how this is

supposed to work. Surely if I treat you as an end, as deserving of respect, I cannot at the same time treat you as means, as a mere object (or possessor of object) of my desire, and *vice versa*. How can I reasonably be expected to do both?

It is precisely this problem which Hegel addresses; and it is in the nature of the problem bequeathed to him that Hegel's answer must take the form of a rationality which is not wholly of the individual agent: this is a rationality which envelops or insinuates itself with the agent rather than emanating from him. The bourgeois partakes of a logic, accedes to reasons, which, though not emanating from his particular subjectivity, must be recognised in order to realise the possibility of bourgeois subjectivity as such.

Just as Kant is the philosophical conscience of bourgeois sensibility, so Hegel is its historian. It is, however, a pseudo-history, a pseudo-movement, since its closure is immanent in its very beginning; social development is not the real movement but rather serves as the material, the vehicle, for this self-moving principle of a completed bourgeois rationality which finds its realisation in the modern state. This principle is the real movement, the genetic blueprint for a fully completed, fully realised bourgeois subjectivity that generates and governs all in the course of its realisation. For the individual bourgeois subject its freedom can no longer (pace Kant) be self-realised but rather finds its support, its condition, its ground, in the idea of mutual respect, a respect that I cannot immediately identify with, now exemplified and realised in the modern state. Recall that for Kant the role of the state is purely instrumental, that of usher, the means whereby I come to know law and thereafter generate this law (for) myself. The state then is the Wittgensteinian ladder (Wittgenstein, 1961) by which I take my first steps towards freedom but which must be pushed aside, dissolved, if that freedom is to be realised. For Hegel, however, all this arises from a fundamental confusion on Kant's part. As individual subject I can never give this law to myself, even after having been shown the way, so to say, by a then vanishing, redundant state. This law, this very condition of bourgeois subjectivity can only be maintained, reproduced, through the modern state. For Hegel, to say that I may come to self-develop the personal resources on which I may draw to secure my subjectivity is to misunderstand the kind of person that I am. To be

sure, I must somehow come to develop the kind of personality that sees - which recognises and acknowledges - in custom and in law the very basis of my subjective will. But this basis must be manifest, must take objective form, in exactly analogous fashion to the way in which, for Marx, the immanently universal, exchange-value characteristic of the commodity can only be realised in the form of money (see 4 above). Otherwise expressed, this doubling of myself as both subjective and (bearer of) universal will requires for Hegel that I find in my world a universal object with which I can readily identify; for how else could I ever be sure that my moral thoughts are not merely subjective will masquerading as universal? (Harris, 1996). But Hegel's point is more than this; for I do not merely 'find' this universal object but create it. I am only able to readily identify with this thing - this manifestation of objective mind - because it is my product: "If I am to exert myself for any object, it must in some way or other be my object...this is the absolute right of personal existence - to find itself satisfied in its activity and labour.. If men are to interest themselves for anything, they must (so to speak) have part of their existence involved in it" (Hegel, 1956:22). Literally, for Hegel, I find myself in the larger life of the state.

To be the kind of person that I am, for Hegel, means above all taking my own private purposes and values as paramount, for "...needs, passions and interests...the satisfactions of selfish desires... are the sole springs of action - the efficient agents in this scene of activity"(*op. cit.* p.20). Thence I must treat the world as mere resource upon which I draw so as to realise my purposes because to behave otherwise is to deny my very (bourgeois) subjectivity. Thus, when Kant asks that I treat others as ends - as subjects also - for the sake of my freedom, he demands that I literally sacrifice myself. On the other hand, to deny the subjectivity of others is also to deny my own, for I (properly) remain a subject only insofar as I can commend my actions to any other like-situated being and demand respect for my actions on this basis; and my attitude above would refuse the possibility that (for me) such beings could exist.

Hegel does not deny that my being relies (in a certain sense) on my treating others as both means and ends, nor does he deny the performative contradiction that seems to arise

therefrom. He does, however, want to argue that the problem is inadequately formulated by Kant. Such a situation can (and does) exist; but, that being the case, the contradiction requires (and does indeed acquire) room to move in the modern world, and in particular in the differentiated articulation of the 'civil' and the political constituted therein. The world thus retains the objective character that my thoroughly subjective stance requires but at the same time its objectivity now embodies and expresses through political institution the conditions whereby this stance may be underwritten. Moreover, I come to see this object - its production and reproduction - as my work.

From a Hegelian perspective, Kant's inadequate formulation of the problem of subjectivity has its roots in his transcendentalism, according to which the object of our inquiry, as we come to know it, must always bear the mark of the cognitive process. Thus, if knowledge is taken to be (as it was by the pre-critical rationalist tradition) knowledge of the object as it is in itself, then its pursuit is necessarily self-defeating. Now this doctrine, though originating in (and in a sense, constituting) the first *Critique*, returns to haunt Kant in the second. For if we can never know the thing-in-itself, then the idea that our freedom as rational beings can depend in some way on our acquiescing to an external (objective) source of authority is a nonsense, a *non sequiter*, because such acquiescence must necessarily lack reason, and is therefore characteristic of a heteronomous, rather than autonomous, self.

Hegel's absolute idealism, in lifting this transcendental block, opens up the possibility that the giving of myself to an authority other than self-authority may be rational after all. For if this larger life of subjectivity, of which I partake as individual subject - which is, indeed, the very condition of my possibility as subject - may be known 'in-itself' and for what it really is, then there is nothing necessarily heteronomous in submitting to its imperatives. On the contrary, in knowing, in recognising, the authority of political institution I see myself as submitting to the very logic of my own being. This 'absolute knowing', this 'Spirit that knows itself as Spirit', then, resists the impossible demand for 'absolute freedom' - that I, as individual subject, can somehow ground my own being - in favour of my reasoned acquiescence to the modern state. In this way subjectivity as such

becomes self-grounding (see Callinicos, 1999:40) and thereby (substantially) free. As a matter of fact, Hegel wants to argue, particular or finite instances of subjectivity (or, at least, of this thinking or reflective subjectivity characteristic of modernity), particular centres of will or intent, can only be realised and sustained in the context of that complex of familial, civil and political society known as the modern state. On the other hand, the modern state is carried by (literally realised in) the activity of subjective will; without finite will, the modern state is literally nothing: subjective will, subjective volition, constitutes the modern state. Ultimately, then, free will consists in the knowing of, and thereby the identifying with, this logic.

Hegel and the Work of Spirit

Hegel does not want to demur from the commonplace view of human freedom as having something to do with the realisation of intent. He does however want to argue that 'subjective liberty' is not the whole of freedom; for subjective freedom as such is 'of a low and limited order'; it is 'mere caprice...which finds its exercise in the sphere of particular and limited desires' (Hegel, 1956:38). Indeed, it cannot be the whole of freedom because '...[a]s a subjective will, occupied with limited passions, it is dependent, and can gratify its desires only within the limits of this dependence' (*ibid*). I could of course claim that, in addition to my action being thoroughly willful, this will or intent which I realise is also of my own making. But this is precisely Hegel's point: I may claim this, but how can I know that I am truly the author of my actions, when my will or intent is just posited? Freedom thus seems to entail a self-positing or self-grounding will. Only a self-grounding will can be self-transparent or rational and thereby free. This transparent self-closure of will or intent is known by Hegel as Spirit, and what is known by Hegel as History is none other than its self-unfolding.

For Hegel as for Kant before him, the free being is a dependent being, and again within a dependency which known and willed. But for Hegel, unlike Kant, this 'making of will out of will' (Hegel, 1956:73), this willing as 'its own deed, its own work', this 'becom[ing of an] object to itself', cannot be a solitary, monological accomplishment but rather arises

from and is part of a larger life, a communal existence. My very inclination and capacity to act cannot help but draw on the larger life of which I partake. It is this larger life which makes me what I am, for '[t]he relation of the individual to that [of] Spirit is that [I] appropriate to [my]self this substantial existence...[thus gaining] character and capability, enabling me to have a definite place in the world'; in short, enabling me 'to be something' (Hegel, 1956:74). Thus Hegel's 'Spirit' does that which spirit is usually supposed to do, viz., impart animation or determination (from spiritus = breath; Collins:1446). But Hegel's Spirit must do more than this: it must do so self-consciously. The work of Spirit is thus the bringing of its substantial rationality to the point of self-consciousness - to the point of Spirit reflecting on its own work. Thus Hegel writes: " Spirit..may be defined as that which has its centre in itself..it exists in and with itself...Spirit is self-contained existence. Now this is Freedom, exactly. For if I am dependent, my being is referred to something else which I am not; I cannot exist independently of something external. I am free, on the contrary, when my existence depends upon myself. This self-contained existence of Spirit is none other than self-consciousness - consciousness of one's own being....Spirit know(ing) itself...It involves an appreciation of its own nature, as also an energy enabling it to realise itself; to make itself actually that which it is potentially". He continues: "[I]t is th[is] freedom of Spirit which constitutes its essence ...In the process before us, the essential nature of freedom - which involves in it absolute necessity - is to be displayed as coming to a consciousness of itself. Itself is its own object of attainment, and the sole aim of Spirit. This result it is, at which the process of the World's History has been continually aiming.."(Hegel, 1956:17-19).

How then, according to Hegel, does Spirit go about 'its great business' of 'self-production' (Hegel, 1956:71), of producing 'will out of will'? Phase one is 'the transcending of immediate, simple unreflected existence' (*ibid.* p.78). Through reflection I come to see my very being as substantiated, underwritten, as constituted even, by the particular form of life of which I am part. We give ourselves to its laws, customs and practices in the knowledge that these are in a deep sense our laws and customs; ours not merely in the sense that these are our causal products or effects (which, of course, they are) but rather that, without these laws and customs, we would lack the capacity to willingly realise

anything at all. Phase one is thus custom raised to consciousness, and this - a 'conception of its life and condition' - is '[t]he highest point in the development of a people'. And it is in the course of such a development that '...[Spirit] return[s] into itself' (*ibid.* p.78).

But phase one - of which the Greek *polis* is exemplary - thus sees my subjective liberty out of phase with its substantial basis; for, despite its world-historical significance, the ethical life of the polis - when viewed from the standpoint of freedom - is fundamentally flawed, requiring as it does an unreflecting allegiance, an allegiance which lacks real volition, in a deep sense, lacking will. Rather, the Athenian citizen gives himself to the state as 'second nature', acting 'as it were, out of instinct' (Hegel, 1956:39 and 106; see also Taylor, 1979:89). For here my reflection, in bringing these customs to consciousness, cannot help but ask: why these customs? Reflection tells me I cannot exist apart from a larger form of life; but why this life? This is phase two.

Of course, the customary brooks no argument and so in the first instance it is subjective liberty which must give way. Thus Socrates, though giving himself to the Athenian *Polis*, could not do so without question; and for this reason was (literally) a 'menace to society' (Tredennick, 1982) and had to be put to death. His 'subjective free thinking...was not yet identical with the substantiality itself', a substantiality clearly 'wanting in subjective liberty' (Hegel, 1989:329). But now that the genie of reflection is out of the bottle, it will not be denied, for '...Spirit, in consuming the envelope of its own existence...in annul[ing] the reality, the permanence of that which is...gains the essence, the Thought, the Universal element of that which it only was (its transient conditions)' (Hegel, 1956:77-8). Ultimately, then, it is the customary which must go under - or, rather, be replaced by a form of life in which the process of reflection is itself the custom. It is here in its final phase - in modernity - that Spirit realises its historic mission.

It is, then, only in the transcending, the going under, of the particular that the Idea of Spirit makes itself known. It is through this 'serial exposition' of social forms - in each of which a particular mode of will-formation is made manifest, raised to consciousness, so to say - that the self-formation of will - its self-production - is disclosed. Now this

'philosophical comprehension' of history teaches me two things. First, that - to steal a trope from Marx - I do not make history, and therefore myself, 'just as I please'. I learn that I am literally nothing without the customs, practices and laws from which I derive the capacity to act. Second, though, I learn that this serial unfolding of different modes of, so to say, first-order will-formation is itself driven by a second-order dynamic of self-reflection - a dynamic, moreover, that as an essentially reflective being, I can count as in a deep sense my own. I thus come to fully understand Spirit, not just as 'that immediate import and aim which it was previously' but now as 'the essence of that import and aim'. In thus 'rendering itself objective', in thus 'making its being an object of thought...[Spirit] destroys the determinate form of its being', and, in so doing, 'gains a comprehension of the universal element which it involves' (Hegel, 1956:77-78), *viz.*, self-reflection. This is what Hegel calls the 'labour of the negative', a process through which "...pure, universal thought ...bring[s] the Special and Spontaneous - Belief, Trust, Customary Morality - to reflect upon itself and its primitive simplicity; to show up the limitation with which it is fettered - partly suggesting reasons for renouncing duties, partly itself demanding reasons" (*ibid.* p.76).

Hegel's story has a twist in its tail, however. In Hegel's dialectic of enlightenment (for that is essentially what Spirit is) self-reflection produces ever more adequate social forms out of itself (and concomitantly, ever more adequate forms of personhood) until finally, in modernity, its work reduces to mere reproduction, mere repetition: in the modern social (value) form the principle of self-reflection finds itself at home. 'At home', but not at rest, for "customary life...brings on natural death...[because it is] activity without opposition...[activity] having no need of its institutions" (Hegel, 1956:74). And herein lies the significance of civil society for Hegel: civil society universalises opposition. It is Hegel's history of the dialectic of consciousness collapsed into, folded into, and continuously unfolding in the present. Although this is still monological thought, monological reflection, civil society is itself 'demanding of reasons' - a society in which 'the person as thinking intelligence knows this substance as his own essence' (Hegel, *cit.* Taylor, 1979:85). Hegel is surely right to see the dialectic of enlightenment as pointing towards a world in which the giving of reasons achieves customary force, has itself

become second nature. In Marx's view, however, as I will want to show below, Hegel is profoundly wrong in identifying commodity society as the only possible (or indeed as an adequate) instantiation of that prospect.

Hegel and Kant Reconsidered

We are now in a position to return to Kant's moralising subject in a more nuanced way. Indeed, Kant's moralising subject is Hegel's Socrates: he cannot help but self-reflect but, in so doing, finds himself without a home, without a life; a modern subject - from whom the 'demanding of reasons' is demanded - but cast adrift from the very customs and institutions which would underwrite such a demand; cast adrift, in other words, from modernity. Socrates' 'demanding of reasons' literally demands another self. For Hegel, Socrates is thus the object rather than the subject of reason.

Hegel's modern subject, whilst having the key attributes of Kant's moraliser, however, differs (on Hegel's reading) in this important respect: the moralising of Hegel's modern subject occasions a return to self rather than a turn into another; this reasoning subject is thus both subject and object - at home in its 'demanding of reasons'. The 'demanding of reasons' is no less demanded of me than it is of Kant's moraliser but here morality is more than some abstract-universalising, other-worldly thought or reflection: it is rather that self-reflection is demanded of me as a shared way of life: it is built into the very practices and institutions through which our life is sustained. Here, finally, critical thought finds a home.

The merit in Hegel's reformulation of the Kantian freedom-problematic, then, is this: what Kant (rightly) takes to be characteristic of modernity - self-reflecting subjectivity - but which he also takes to be a capacity naturally, always already, inhering in subjective will, Hegel shows to be the outcome of a protracted historical process. Also, if the problem is taken to be one of showing how the bourgeois form of subjectivity becomes self-sustaining - and Kant does posit the bourgeois form of subjectivity - then Hegel

offers (at least part of) a possible solution. Kant's antinomy - the requirement that I treat others as both means and ends - seems to dissolve in Hegel's hands.

But there is also merit in Kant's position. Despite the antimony which his identification of self-reflecting subjectivity and bourgeois subjectivity engenders, Kant stubbornly refuses the (social) systematic closure to which Hegel resorts. To put it crudely, as an Hegelian subject I demand reasons of myself, and find them in the form of an enlightened self-interest. Kant's dilemma of somehow maintaining subjectivity in the face of giving due consideration to the will of others is dealt with by Hegel through the device of the giving of no consideration to the will of others: Hegel dissolves the tension in Kant's thought between monological and dialogical reason by making all reason monological. For Kant, however, there is no doubt: the Idea is that I must justify my actions to others; as truly free will - as rational and dependent being - I give reasons to others rather than self. Of course freedom still lies in the exercise of volition, in the exercise of will. But for Kant freedom must amount to more than this (*pace* conventional hermeneutics); for in addition this willing must truly be of my own making. And to be of my own making - as rational and dependent being - it must find favour with like-minded others.

As Kant formulates his freedom-problematic, it lacks sustainability, standing (and self-consciously so) as merely 'regulative', merely ideal. Now Hegel's reformulation is (again, self-consciously) sustainable, but at some cost. Hegel sees clearly that sustainability here requires (in a certain sense) the self-making or, more precisely, the self-reproduction of a particular kind of person in a particular kind of world. That person and that world become mutually sustaining, but only because I reason that the self that I am is the only self that I can ever be. My actions are no longer creative, can no longer be exemplary in the Kantian sense.

It is in this way that Hegel's post-conventional, post-customary aspirations run aground. Self-repetition, self-reproduction, stand over Hegel's modern self as her fate. This custom, this second nature - Hegel's Spiritual accomplishment - is what Marx knows as value: the larger life of which I partake as a modern subject is the life of a value-subject,

a being not self-determined but rather determined by the logic of value-production. And what Marx wants to show through his value theory is that which Hegel takes to be my understanding, my intent is nothing of the sort. For Marx, Hegel's intimations of freedom conceal a new enslavement.

8.4 Marx, Freedom and the Self

It is precisely this surreptitious enslavement that Marx's value theory attempts to reveal. The fundamental human capacity for reflection, for the giving of reasons, is attenuated by a second-order grammar and vocabulary which, though parasitic on this capacity (indeed, because it is parasitic on this capacity), restricts its use to a class of (monological) problems in such a way that the self which reflects is never itself called into question. Otherwise put, reason is here pressed into service instrumentally, to determine how a self, a form of life that I take as given, may be perpetuated, rather than to bring into question that form of life itself.

Marx's free individuality is a form of reflective individuality, but unlike Hegel's modern (bourgeois) subject, for whom a self-conscious self-reproduction exists as fate, Marx's free individual is self-creating rather than merely self-reproducing. Now, as Marx is at pains to point out, human activity is always creative in a way that other forms of activity are not. So, for example, “..[a] spider conducts operations that resemble those of a weaver, and a bee puts to shame many an architect in the construction of her cells. But what distinguishes the worst architect from the best of bees is this, that the architect raises his structure in imagination before he erects it in reality. [Thus] at the end of every labour-process, we get a result that already existed in the imagination of the labourer at its commencement” (Marx, 1974:174; Gould, 1978, chap.3). Human being, then, is above all else minded being, a being which has at its core the shaping of environment according to concept, and, at least in *potentia*, the making of world. In making that world, Marx continues, '[I] realise a purpose of [my] own'.

But by that same token, because human activity is always creative in the (weak) sense just adumbrated, creativity of itself cannot be definitive of free activity. Indeed it is surely the point of Marx's value discourse to disabuse us of the idea that weak creativity of itself guarantees anything at all in this regard. So one can say in the case of the commodity producer that we get a result that existed in the imagination at its commencement (see 3 above); and in the double sense that my over-riding idea is a sum of money and its mediation, a saleable product (see 4 above). But does Marx really want to claim that, in this case, I realise a purpose of my own? Surely not. Rather, free activity for Marx is what it is in virtue of its universality; it is the activity of 'universally developed individuals' (Marx, 1973:162); a form of creative activity with the capacity to 'range freely over the world' (McDowell, 1994:117).

But, again, Marx's use of term universality is subject to misinterpretation (see, for example, Chitty, 1993; or, again, Burgra and Irzik, 1999). In Chitty's Marx, universality and freedom connect up through need: for this Marx the refinement and diversification of needs is of the essence of man. Accordingly man's freedom '*consists* in this elaboration' (Chitty, 1993:26). This thought, though attractive in its own way, cannot be the nub of Marx's (value-critical) position, however. For how can freedom *consist* in this elaboration when at the same time Marx claims capitalism 'elaborates' in just this way (and others besides)? By universality here Marx (if coherent) has to mean more than an inclination and capacity on the part of the individual to produce and consume over a wider range of use-values, more than a more sophisticated attitude to consumption or greater repertoire of productive skills, than at present. For sure, individual capacities (if not needs, and certainly not social capacities) have become somewhat attenuated as compared to pre-modern life-styles, but Marx is in no doubt: it would in any case be 'ridiculous to yearn for a return to that original fullness' (Marx, 1973:162). 'There is a devil of a difference', he writes, 'between barbarians who are fit by nature to be used for anything, and civilised people who apply themselves to everything' (Marx, *cit.* Forbes, 1990:200). This 'devil of a difference' for Marx is between a fullness 'to be used' and one which is freely 'applied'. In any case, because fullness of itself admits no such distinction it cannot be the basis of free activity. Quite simply, universality as 'fullness' is not what Marx is driving at.

Now human being as conceptual being clearly admits a form of universality not available to other sentient life-forms. For to conceptualise in itself is to re-present the world. In subsuming particulars under concept, in itself and independent of realisation, is to make the world for me: pieces of wood become a chair; bricks, blocks, etc., become a house. In conceptualising, in forming intents and purposes, I literally (re-) order, give order to, the world. In this way the world becomes my world: always already 'ready-to-hand', as Heidegger (1962) puts it. Thus Marx writes: "The universality of man appears in practice precisely in the universality which makes all nature his inorganic body" (1977a:72). On the other hand, my capacity for conceptual and purposive work carries intimations of a yet deeper, reflexive form of universality, one in which the individual "treats *himself* [my italics] as a universal..." and in this ('therefore') treats himself as a 'free being' (*ibid.*:72). This is more than the 'universality of man' which consists merely in the universalising or conceptualising of (external) world. This 'free being' has the reflexive quality of bringing himself under the universal, of conceptualising himself, of making himself his own object, making himself fit for his own purpose, so to say. Marx goes on: "His own life is an object for him. *Only because of that* is his activity free activity" (*ibid.*:73; my italics).

In saying this - in making '[my] life an object for me...only because of that is [my] activity free activity' - Marx reveals his debt to the German idealist conception of freedom. But after Hegel, and *pace* Kant, Marx cannot see this as an act of sheer (monological) will. On the other hand, and *pace* Hegel, neither can he accept that my freedom consists merely in identifying with the logic of the social, 'appropriat[ing] to [myself] this substantial existence' (Hegel, 1956:74). To be sure, I only become 'individuated within society' (Marx, 1973:84). It is only by 'enter[ing] into' relations of production that I am constituted (albeit mediately according to Marx's (1971) *Preface* formulation) as a purposive-rational actor; only through these relations do I derive the capacity to act, derive my very personality, as it were. These relations are the condition of possibility of my very being: 'in the ..production of [my] existence [I] *inevitably* enter into [these] relations' (1971, 20; my italics). Yet so long as these stand over me as second nature, as 'independent of [my] will' (1971:20), as indeed value-relations do, my purposes

remain in a deep sense 'extraneous purposes', and what passes for my duty is no more than 'social duty' (1972:257). Let us suppose (after Marx), then, that for a properly free individuality the 'social' in 'social duty' and the 'extraneous' in 'extraneous purposes', are dissolved, leaving as residues 'my' duty, and 'my' purposes; thence duties and purposes presumably become mine and mine alone. But what is the 'my' that remains? Surely, the dissolution of the social is at the same time the dissolution of the 'me'.

For Marx, however, there is a 'me' that remains. It is the one that produces universally, the one that 'does not reproduce himself in any pre-determined form, but produces his totality' (Marx, 1964:85). Indeed, it is the one that does not (self-)reproduce' at all, but instead self-produces, self-creates. Free activity exists only as 'exertion as subject', an exertion that is truly under my control, an 'activity [that] regulat[es], [is in control of], all the forces of nature' (Marx, 1973:611-612). Later Marx clarifies: by 'forces of nature' he means "those of his own nature as well as those of so-called 'nature'" (Marx, 1964:84) So 'all' here includes my nature as purposive being. I cannot help but act purposefully: that is my nature. But I may or may not be in charge of those purposes; and when I am so in charge, my actions are no longer merely purposeful, but free.

On the other hand, my nature also determines that I cannot take charge of myself all by myself. 'It is not...that "I should develop myself" [in autonomist fashion]...[but] instead [become] liberat[ed] from one quite definite mode of development' (Marx, 1970:117). And Marx finds the wherewithal, the resources, for this dialogical act of self-production in a community of (in a deep sense) self-interested humans. For '...just as society produces man as man, so it is produced by him' (Marx, 1977a:98). But it must be a 'restoration of man to himself [viz.,] as social...which has become conscious' (*ibid.*:96). And this 'universal development' of which Marx speaks requires individuals "who [treat their] social relations as their own communal relations, and hence subordinate [those social relations] to their own communal control" (Marx, 1973:162). The free individual is the subject who, in concert with like-minded others that makes itself an object of reason and modifies, reconstitutes, itself accordingly; and where by 'reason' here is meant its commonplace (dialogical) meaning of 'acceptable to others'; a self that is constituted by

the scrutiny of others; a self in other words that fully realises Kant's ideal of 'rational' and 'dependent' being. It is, then, only those purposes that satisfy such a tribunal that truly count as my purposes. It is “that development [note: development and not exercise or expenditure] of energy [viz., purpose or motive] which is an end in itself [and as such is] the true realm of freedom” (Marx, *cit.* Forbes, 1990:218).

In sum: to take control of social relations is to take control of human nature because 'human nature is [nothing but] the ensemble of social relations' (*ibid.*:188). And to take control here means to subject this 'ensemble' to reasons, to dialogue; after all, 'if man is formed by circumstances, [then] these circumstances must [themselves] be humanly formed' (*ibid.*:205). But to take control of human nature in just this way is (mediately) to take control of the production of purpose; and to take control of purpose - effectively, the humanising of human nature - is to take control of oneself. For Marx, however, value-production is purposive activity out of (human) control – beyond the circle of reasons – and for that reason alone, a human nature yet to be humanised.

8.5 Concluding Remarks

If we hold in mind the idea that freedom consists in a thoroughly self-determined individuality, *a la* Kant, whilst, like Hegel, refusing the idea that such an individuality can come into being independent of connectivity as such, then Marx comes into view.

Certainly Hegel refuses this characteristically Kantian notion. Hegel's subject is always socially-constituted, and therefore always constituted in (internal) relation with others. Now, as Marx points out, these modes do not amount to the same thing, for 'socially constituted' is by no means the only way in which a subject may be constituted in relation with others. But, be that as it may, a socially constituted subjectivity is the only way that Hegel can conceive of subjectivity as an emergent property. Thus the social (in Marx's negative sense) is naturalised by Hegel, so that in the now and hereafter, what Kant self-consciously idealises as subject-to-subject negotiation, is reduced by Hegel to a subject-object relation in which subjective will draws on other, not as he or she deserving of

recognition, as end-in-itself, but now subsumed in the social – instrumentally, as mere resource.

Like Kant's thorough-going second-person, subject-to-subject, inter-subjective perspective Marx's freedom refuses to countenance any form of mediation, any social form which is not somehow a deliberate construct of the individuals themselves. To get from here to Marx, however, we have to refuse in turn the Kantian notion that the subject which enters into relation with others is somehow (monologically) self-constituted prior to this relation being formed. In opening myself up to the reasons of others, just as they in analogous fashion open up to me, it is not so much for Marx (see 1977a:74) that we treat others as Kantian ends rather than means (which would leave as aporetic how such ends are first constituted) but rather that we offer ourselves (and to ourselves) as selves or ends as yet to be determined.

9. CONCLUSION: WORLD AND ENVIRONMENT

In each of the chapters above I have attempted to offer new perspectives on Marx's value theory. It is time now to take stock of Marx's project in the light of these perspectives, and in so doing, of Marx's relation to the value-moderns. Certainly, like Dobb, one can say that Marx's value theory is 'something more than a theory of value as generally conceived' (Dobb, 1971:11). At the same time, however, a reading in which Marx's value-project reduces to classical-Ricardian price-determination theory with Hegelian-philosophical flourishes simply won't do. If not in this sense, then, how is Marx's value-project more than value theory as generally conceived?

Value theory, as conceived by theorists as apparently diverse as Ricardo (1987) and Walras (1954), is a theory of price determination: how quantities of one sort (labour-embodied and *rarete*, respectively) explain quantities of another sort (*ie.* prices). Perhaps, then, Marx's value theory is to be distinguished from that of the value-moderns in just the afore-mentioned sense: as more than a theory of price determination *a la* Walras and Ricardo.

Such a distinction fails at once, however, because the idea of price determination as the whole of value theory, or even as its over-riding concern, is not a definitive moment of value-modernity. Consider, for example, the theory of Carl Menger. Certainly Menger is a value-modern (see Menger, 1950 and below) and yet his value-modernity espouses a deliberate price-*indeterminacy*. As Jaffe (1976) puts it, Menger's value-problem, *pace* his neoclassical contemporaries, is price *formation* rather than price determination. Like Marx, he takes value and price to be distinct, though internally related, categories. Again, like Marx, money is seen by Menger as explicable in value-theoretic terms alone. Hong (2000:102) concludes from all of this that the two thinkers had a 'similar problematic'. But so to do is to conclude that Marx is a value-modern.

We avoid aporetic conclusions by taking Marx at his word. Marx offers a contribution to the critique of political economy, not to political economy as such (Marx, 1971). Marx

here is surely using *critique* in its Kantian sense: as an inquiry into the presuppositions and limits of a discourse. But whereas for Kant the whole of thought is at stake, Marx's critical question instead focuses on thinking the world according to political-economic concepts and categories. Looked at in this way, then, Marx's value theory is not value theory at all in the modern sense, but rather a meta-value theory. It is not so much the particular rights and wrongs of what is said by different versions of value-modernity that is the overriding concern for Marx (though, at the same time, these differences are not lacking in interest or significance) but rather that which conditions the possibility of political-economy as such. And in this regard Marx concludes the following: the condition of possibility of political-economic discourse, the presupposition of value-modernity, and irrespective of whether it espouses a labour (Ricardo), rarete (Walras and Jevons) or economising theory of price (Menger) - is labour. Otherwise put, although vulgar economy may argue against the classical labour-value view and in favour of some subjective-intentionalist factor, or, against this, a neo-Ricardianism may rejoin in favour of seeing price (now cleansed of residual labour-expressive meaning) as physical-reproductive norm, still it is labour that establishes the truth-conditions, the particular space of reasons, from which such claims get their sense.

Subject to Marx's critique, then, value-modern discourse (mediately) discloses labour as its presupposition. Marx's materialism, however, requires that he read this disclosure in a particular way: this disclosure of a new space of reasons is not to be regarded as occult event but rather as determined by socio-economic circumstance. It is, therefore, a critique informed by the thought that, like the other discourses of modernity, political economy is constituted by, is an artefact of, the world upon which it reflects. Consequently, the critique of political economy and of the value-moderns is at the same time a critique of value and of capital, of value *in situ* and of value-in-process. Marx clearly sees the two projects as internally related, capital being immanent in value. Yet to somehow see capital as *manifest* in value is to fail to explicate *how* capital is immanent in value and, as a consequence, to reduce the whole of Marx to a critical Hegelianism in which the value-present is hypostatized, made inevitable, a deformation awaiting individuals as their fate; a value-present and value-future, seeking consolation in voluntaristically

established sites of micrological resistance to a macrologic that brooks no argument. On the other hand, to collapse value into capital without remainder is to fall prey to a social positivism which lacks critical faculty altogether, (exploitation; unpaid labour: not normative categories for Marx) a form of inquiry capable of seeing beyond a labour mediated by commerce, but one still tied to the necessity of labour.

Beyond one or two allusions I do not dwell in my text on how one should draw capital out of value. My concern above is rather with Marx's value-project pure and simple - by which I take to mean an inquiry into the world of capital, but carried out at a certain level of abstraction. In any case, as Arthur (2000) points out, the (alternative) idea of value theory as spelling out the laws of motion of a 'simple commodity society' - of a society that is so organised to produce commodities but not capital - is an invention of Engels, rather than Marx's own. Also, my concern is with the development of what I take to be the major themes of Marx's value-project: my choices here should not be taken to imply that there could be no other themes of interest, nor that the themes that I do develop could not be developed in other ways. That said, I should at this stage briefly rehearse what my arguments are in those earlier chapters.

In chapter 1 I set the scene for much of what is to follow by identifying Marx's value theory with his critique of political economy. In treating human activity as instrumental, as having significance only in so far as it resources material production, political economy shows itself to be the exemplary discourse of modernity, faithfully reflecting the key features of life under capitalism, but in an uncritical way. Marx claims that political-economic discourse is unhistorical. Yet it is not so much for Marx that the political economists lack a sense of history as that they cannot see beyond a capitalist present: in political economy the form of human being realised in developed capitalism is mistaken for human nature.

In chapter 2 I consider the claim(s) that the recurrent 'crises' in Marxist theorising (see Haycock, 1992) could and should be solved through the exorcising of Hegelian-dialectical forms of thought and the adoption of the more reductive, analytical strategies

supposedly at work in physical science. I show there that such claims are based on a somewhat attenuated reading of the physical-scientific record. In particular I claim that interesting parallels can be drawn between Marx's critical approach to the social, especially the characteristically 'Hegelian' doubling of material and socio-cultural function in the commodity-form of human activity, and path-breaking developments in the field of physical theory. But, as I remark, it is not 'methodology' but rather orientation which is at stake here. Attempts at purifying Marxism according to AM strictures leave a new form of political economy rather than its critique: AM, like all political economy, simply posits a form of individuality which Marx's value-project problematises. It is no wonder, then, that Roemer cannot see the point of Marx's value theory.

The remaining chapters of my text follow Marx in problemizing the modern form of individuality, its nature and its limits. In chapters 3 and 4 I consider the doubling of function in the commodity-form alluded to above. When Arthur writes that in 'simple circulation...the origin of the products circulating is bracketed...taken as given' (2000:1), this is, strictly speaking, not correct. For, in speaking of *commodities*, we do know this: that they are produced for the explicit purpose of commerce. Now if we assume, *a la* Smith, a natural propensity for this - in other words, that human being is somehow hard-wired for commerce, then little of critical value remains to be said. Otherwise, however, an interesting question emerges in regard to the Enlightenment credentials of social modernity (see especially 3.3 above). Can one show that commodification represents a gain (albeit an immanent gain) in rationality? I show in chapter 3 that even when commodity-producers organise their interactions by way of collective agreement, as is (implicitly) the case in the GE idealisation of market phenomena, and in so doing coordinate their activities in orderly fashion, it makes no sense, *pace* some interpretations of the GE framework, to think of this agreement as being *about* an orderly disposition of activities. On the contrary, it does make sense to think of commodity circulation as does Marx: as based on a 'silly mysticism', as a process that necessarily goes on 'behind the backs' of participants, as subject to 'blind law'.

In chapter 4 I consider Marx's theory of money. "Never has anyone written about 'money

in general' amidst such a total lack of money in particular...." (Marx, *cit.* Nicolaus, 1973:11). But what did Marx know about 'money in general'? Marx knew this: that the doubling of function in the commodity-form arises from an analogous doubling in commodity-producing activity; and that money thence arises from the need to smooth over the tension inherent in a form of production in which one is indifferent to the needs of others and yet, from the systemic standpoint, those needs cannot be ignored. Money, then, is integral to a process that *imposes* social need on an otherwise indifferent producer, making private decision socially accountable. But Marx's way of expressing this - *viz.*, that money-demand is a way of telling the private producer what use-values to produce - tacitly assumes that the commodity-producer's (albeit instrumental) purpose is the production of use-values, and so fails to adequately characterise both the indifference at the heart of the system and the role of money within it. In chapter 4 I argue that it is incumbent on commodity-producers only that they *appear* to engage in socially-useful activities, and thus that money surfaces as a way of ensuring a closer correspondence between this appearance and reality.

In so far as the value-form of the commodity, and in particular its most developed expression, money, is necessitated by a form of co-operative activity in which the co-operation (though not of course the activity itself) lacks intent, and in so far as this particular form of activity may be called 'labour', then one is justified in saying, as Marx does, that labour is the substance of value. Of course, such an interpretation of the value-substance takes us some way from the traditional view of it as a quanta of time which can be identified prior to price and thence of its distribution across different sectors of the economy as somehow determining the structure of prices in classical-mechanical fashion. Arguably, a better metaphor for understanding the relationship between value-form and value-substance is as (internally related) moments in a total process, neither one defined without the other, and certainly neither moment arising prior to the other. In any case, the adoption of a more nuanced approach to value-substance, as I try to show in chapters 5 and 6, of itself requires no loss of rigour. In chapter 5 I reinterpret (social) labour as a restriction on the space of material possibilities for purposive, co-operative activity, a formulation which surfaces again in chapter 7, though here in the context of Marx's

theory of history and philosophical anthropology. In chapter 6, the vexed question as to the meaning of abstract labour is addressed. Here I argue that 'abstract labour' is not to be understood as commercially-oriented activity with its concrete characteristics somehow left out of account, but rather as a measure of the socialness of such activity. Such a measure, I claim, is constituted through the value-form (and in particular its money-form) of the commodity-product. There is ample textual evidence that Marx himself pursues this line of inquiry (as well as others), and, in any case, to say that a meaningful measure of the socialness of labour is constituted by the exchange of commodity-products is not to say that labour as a social determination is also thus constituted. So to say would be to confuse the determination of the socialness of commodity-producing activity with its measure.

As I argue in chapter 8, it is the idea of the social as a corrupted form of human community that pervades all of the above. In regard to Marx's value-project, it is the critique of a self which has as its only purpose its own reproduction (rather than its own production), a self that '..changes..the life of the species [ie. the rational-associative production of purpose] into a means of individual life' (Marx, 1977:73), which is of the essence. Modern value theory regards the commodity-form of the human product, and the value-form of the commodity itself, as the mere reflux of the purposive doings of minded creatures set free from the demands of traditional life and its (literally) thoughtless dependencies. There is of course some truth in this claim: commercially organised activity does in some sense equate with self-organised, self-managed, activity. But value-modernity, because labour is its presupposition, cannot ask in what this self-that-organises, this self-that-manages, consists. It cannot ask *in what sense* this is self-organised, self-managed, activity. Axiomatically, this self that is posited in value-modernity is purpose, intent, plan. But whose purpose, whose intent? When are the purposes that inhere in me to count as my own?

Bourgeois society - heralding as it does the birth of the economic subject - seems to open (and to realise) the possibility of an individual purpose and intent which is no longer the mere bearer or agent of a pre-determined socio-political will. *This* purpose appears as

self-constituting and self-legislating purpose, drawing on internal resources alone to finance the capacity to act. As such, and in constituting itself as a deliberate nexus of personal intent rather than through supra-personal political fiat, bourgeois society raises for the first time the possibility of a rational economic calculation. As I try to show above, however, even when collectively and consciously deliberating over the systemic consequences of their actions - so that, *a la* Ricardo, and more explicitly in the later Lausanne tradition, it really is as though commodity-producers are merely 'fulfilling orders placed by society' (Marx, 1972:121) - the deliberations of the commodity-subject cannot help but take an irrational form (see **3** above), an irrationality out of which the money-form necessarily 'crystallises (**4**), a development which, in turn, provides a measure of how well 'private' purposes 'fulfill the orders placed' by the purpose of 'society' (**6**). But this is no innocuous accounting-device, for the constituting of private purpose by 'society' has material consequences (**5&7**) or, rather, this 'placing of orders by society', this 'simple circulation', consists in a purpose all of its own, restricting the space over which 'my' purposes would otherwise range. Indeed, one should emphasise here (see **8**): the point is not that 'my' purposes are supervened, over-ridden, by the logic of value, but rather that the purposes that I come to call my own are constituted by and thence reproduced *via* this logic. In sum, then, one may say this. According to the value-moderns, commercial valuations arise synthetically from the prior valuations and assessments of a space of self-responsible persons, and thus spell the end of the social as an autonomous, (literally) self-sustaining entity. For Marx, however, the emancipatory promise of political economy cannot be cashed out. Value-relations spell a new form of enslavement: there is a sense in which my purposes, when value-purposes, are not really my own.

Marx gets his talk of freedom partly from French socialism but, more especially, from Kant and Hegel; and that is why his value theory, his critique of political economy, is simply unintelligible when cast adrift from that background. What Marx gets from Kant and Hegel in their drawing-out of modernity from itself is the idea of freedom as a radical self-making. What Marx comes to reject, however, is its philosophical shell: the idea of self-activity as cultural artefact, as an unadulterated willing. Indeed, on Marx's reading,

the German idealist conceit of a self-making *ex nihilo* turns into its opposite: the reproduction of what is, though now re-presented as extraordinary, exemplary act. For Marx, political economy provides the key to what is going on here. For in political-economic discourse he finds the presentation of what is, as it is: the (apparently) extraordinary unmasked to show the ordinary, the mundane, the routine. Political economy faithfully represents critically self-appraised, self-responsible activity as a matter of fact; more: as a matter of life and death. In this way political economy reconfigures the significance of modernity: as natural event, as subject to its own laws. Yet, as Marx wants to show, these laws are those of self-managed activity only in a limited sense. Political-economic law is indeed that of critically self-appraised, self-responsible activity, but a self-responsible activity without regard to the self at work here: the self as quietly reproduced; self-making as system-imperative. Marx's critique of political economy, then, amounts to a de-naturing of the events the value-moderns describe, a reconfiguring of modernity as enchanted world, and of modern value theory as the exemplary discourse of this new enchantment (Woolton (ed.), 1996).

Key to this new enchantment and Marx's critique of it is the meaning of work. The birth of the modern, the birth of economy, ushers in work as sacrifice, as labour. In fact, this new meaning first appears in complementary form, as a wealth (literally, well-being) indifferent to the configuration of human activity. Yet this wealth is no stand-alone entity, no 'external, mindless objectivity' (Marx:1977a:90); for, as the classicals came to see, wealth as property is sustainable only insofar as its indifference to the configuration of human activity itself becomes active, principled, reducing the significance of work to that of mere resource. It is not that the form taken by work in different areas is of no consequence (how can it be, when it is precisely this which will determine the content of property?), but rather that the meaning of each is ultimately as an instance or moment in an overarching, self-reproducing economy of time. This is precisely the 'discovery of epoch-making proportions' to which Marx credits classical economy: the 'eleva[tion of] labour to the position of its sole principle', thus making wealth as property the 'inner substance of man', making man the 'tense essence of private property' (Marx, 1977a:90).

Yet political economy does all of these things uncritically. In 'elevating labour' to its 'sole principle', in making private property 'man's inner substance', his 'tense essence', it is as if man *is* labour. It is as if the sacrifice, the self-discipline which is labour, is a purely quantitative (and moreover a self-determined) sacrifice: I sacrifice so many hours but otherwise leave everything aright, everything as it is. Marx wants to argue that everything is not aright, human being as labour itself effecting a qualitative change. It is not as though an 'external', 'mindless' value-objectivity makes abstract-general or socially determinate an otherwise innocent space of concrete-useful labours. It is rather that concrete labour is already labour - already a social determination - human being reconfigured as instrument, as ready-to-hand. Thus, as Marx wants to urge, this labour (and this labour *is* value (see Marx, 1969:197) is not mere sacrifice or self-discipline but rather *self*-sacrifice. But if labour is value is self-sacrifice, then in what does this self-sacrifice, this self-denial, consist? What is this self that human being as labour sacrifices, denies?

For Marx, this self that I sacrifice in making myself labour, in making myself 'modern industry', is a self capable of properly minded activity. To be sure, when I engage in value-activity there is an intelligence at work here; but it is an 'alien intelligence': 'it is they who direct it' (Marx, 1973:470). Of course, a purpose is a reason, so that in a certain sense purposive activity is always minded, but not in the sense that Marx demands of properly minded activity. As value-subject my purposes have become value-purposes; my reasons, value-reasons. Value is not merely the co-ordinating of purposes but the constituting of them. Value is like a language through which we express and understand ourselves; value is our being-in-the-world from which our purposive doings emanate and get their sense (Ricoeur, 1983:154). Value itself, however, answers to no-one and brooks no argument, thus 'estrang[ing our] spiritual aspect, [our] human aspect' (Marx, 1977a:74). It is, therefore, an attenuated form of reasoning, a restriction on the space of reasons, a restriction on 'what can count as a reason for what' (McDowell, 1994; see also Shapiro, 1993). In taking beyond mind 'that development of human energy [motive, intent, purpose], which, [as] an end in itself, [is] the true realm of freedom', it 'changes...the life of the species [minded activity] into

a means of individual life' (Marx, 1977a:73).

It is natural for a human being to look for (and find) meaning in its actions - which is just another way of saying that human activity is minded activity. So to say - as some would have it - that value (usually imprecisely rendered as 'modernity') somehow empties the world of meaning (note needed here on 'disenchantment') is to make the very idea of a specifically human being incomprehensible. Certainly Marx does not say (or imply) this. He does talk of a de-humanising (see, for example, Marx, 1977a:118), by which he means, however, a failure to realise a properly, or fully, human way of life, and not an absence of the human as such. But for Marx the modern form of this failure arises, not because of a value-instigated meaning-vacuum, but rather because in modernity meaning and value coincide: it is value that gives our world its meaning; more: value as labour constitutes our world.

Marx's critique of value-modernity, then, boils down to this. To search for meaning is our natural way of being in the world. *Pace* the economists, however, it is not natural that we should find this meaning in value, in labour. When we do, we turn world into environment, and ourselves into proto-subjects, for whom life is a mere 'coping', a 'succession of problems and opportunities that the [value-]environment throws up' (MacDowell, 1994:118). In making ourselves into this 'tense essence of wealth', into labour, our capacity for minded, critical activity is only selectively utilised (Habermas, 1992:50), is made a 'means of individual life', is realised in the form of a monological reason in service to the reproduction of an already (value-)posited self. Now the alternative to this state of affairs for Marx is not a constellation of selves and their purposes which are somehow autonomously formed (because for Marx, and *pace* Kant, they never are), but rather a formation which is itself minded activity, is itself a dialogical reasoning without externally imposed limit. To steal a final trope from McDowell (1994:117). It is only when we abandon this limit which is value that for Marx our activity can 'range freely over the world'.

REFERENCES

- Adaman, F. and P. Devine. 1996. "The Economic Calculation Debate: Lessons for Socialists". *Cambridge Journal of Economics*, 20.
- Aglietta, M. 1979. *A Theory of Capitalist Regulation - the US Experience*. New Left Books.
- Akerlof, George. 1970. "The Market for 'Lemons': Quality Uncertainty and the Market Mechanism". *Quarterly Journal of Economics*.
- Albritton, Robert, R. 1984. *The Dialectic of Capital: a Japanese Contribution*. *Capital and Class*, No.22.
- Althusser, Louis, and E. Balibar. 1970. *Reading Capital*. London.
- Althusser, Louis. 1972. *Politics and History: Montesquieu, Rousseau, Hegel and Marx*. New Left Books.
- Amariglio, J. and A. Callari. 1989. "Marxian Value Theory and the Problem of the Subject: the Role of Commodity Fetishism". *Rethinking Marxism*, 2 (Fall).
- Anderson, Kevin. 1992. "Rubel's Marxology: A Critique". *Capital and Class*, 47.
- Arestis, Philip and Malcolm Sawyer (eds.). 1994. *The Elgar Companion to Radical Political Economy*. Aldershot: Edward Elgar.
- Aristotle. 1985. *Nicomachean Ethics*. Hackett.
- Arrow, Kenneth and Gerard Debreu. 1954. "Existence of an Equilibrium for a Competitive Economy", *Econometrica*, Vol.22.

Arrow, Kenneth and Frank H. Hahn. 1971. *General Competitive Analysis*. Holden-Day.

Arthur, C.J. 1986. *Dialectics of Labour: Marx and his Relation to Hegel*. Oxford: Blackwell.

Arthur, C.J. 1988. "Hegels Theory of Value", in Williams (ed.), 1988.

Arthur, C.J. 1993. "Hegels Logic and Marx's Capital", in Moseley, 1993.

Arthur, C.J. 2000. "Value, Labour and Negativity". Unpublished.

Bateman, Bradley W. and John B. Davis. 1991. *Keynes and Philosophy: Essays on the Origin of Keynes's Thought*. Aldershot: Edward Elgar.

Barthes, R. 1979. "Inaugural Lecture at the *College de France* (1977)". *Oxford Literary Review*, 4 (1).

Bernstein, J.M. 1995. *Recovering Ethical Life*. London: Routledge.

Binmore, Ken. 1991. "Foundations of Game Theory". *Discussion Papers in Economics*, 91-08. University College London.

Blaug, Mark. 1985. *Economic Theory in Retrospect*. Cambridge: Cambridge University Press.

Bohm, D. 1980. *Wholeness and the Implicate Order*. London: Routledge, Kegan Paul.

Bohm-Bawerk, E. von. 1962. "Unresolved Contradictions in the Marxian Economic System". Section IV in *Shorter Classics of Engen von Bohm-Bawerk*. Libertarian Press.

Braverman, H. 1974. *Labour and Monopoly Capital: The Degradation of Work in the Twentieth Century*. Monthly Review Press.

Brunner, Karl and A.H. Meltzer. 1971. "The Uses of Money: Money in the Theory of an Exchange Economy". *American Economic Review*.

Burgra, A. and G. Irzik. 1999. Human Needs, Consumption, and Social Policy. *Economics and Philosophy* 15.

Cahn, S.M. (ed.) 1990. *Classics of Western Philosophy* (3rd ed.). Indianapolis: Hackett.

Callinicos, A. 1999. *An Introduction to Social Theory*. Polity.

Chitty, Andrew. 1993. "The Early Marx on Needs". *Radical Philosophy*, 64.

Clarke, S. 1989. "The Basic Theory of Capitalism: a Critical Review of Itoh and the Uno School". *Capital and Class*, No.37.

Clower, Robert W. 1977. "The Anatomy of Monetary Theory". *American Economic Review*.

Cohen, G.A. 1978. *Karl Marx's Theory of History: a Defense*. Princeton University Press.

Cohen, G.A. 1988. *History, Labour and Freedom: Themes from Marx*. Clarendon Press.

Collier, Andrew. 1997. "Unhewn Demonstrations". *Radical Philosophy*, 81.

Crook, Stephen. 1991. *Modernist Radicalism and its Aftermath*. London: Routledge.

Davies, P. 1984. *Quantum Mechanics*. London: Routledge and Kegan Paul.

Davies, P. 1990. *God and the New Physics*. Harmondsworth: Penguin.

Debreu, Gerard. 1959. *Theory of Value*. Wiley.

Dennett, D. 1992. *Consciousness Explained*. Harmondsworth: Penguin.

d'Entreves, Maurizio Passerin, and Seyla Benhabib (eds.). 1996. *Habermas and the Unfinished Project of Modernity*. Cambridge: Polity.

Devine, James. 1993. "Microfoundations and Methodology in Modeling Capitalism". *Review of Radical Political Economics*, 25 (3).

De Vroey, M. 1981. "Value, Production, and Exchange" in Steedman and Sweezy (eds.) *The Value Controversy*. Verso/New Left Books.

De Vroey, M. 1982. "On the Obsolescence of the Marxian Theory of Value: a Critical Review". *Capital and Class*, No.17.

Diamond, P. 1984. "Money in Search Equilibrium". *Econometrica*, 52 (1).

Dobb, Maurice. 1935. "Economic Theory and Socialist Economy: a Reply". *Review of Economic Studies* vol. II (2).

Dobb, Maurice. 1971. "Introduction" to Marx (1971).

Dobb, Maurice. 1973. *Theories of Value and Distribution Since Adam Smith*. Cambridge: Cambridge University Press.

Drake, S. (trans.). 1953. *Galileo Galilei: Dialogue Concerning the Two Chief World Systems - Ptolemaic and Copernican*. Berkeley: University of California.

Drakopoulos, S. 1990. "Economic Method and Contemporary Physical Science Epistemology". *Discussion Paper*, 90-06, Department of Economics, University of Aberdeen.

Dumm, T.L. 1996. *Michel Foucault and the Politics of Freedom*. Sage.

Einstein, A. 1954. *Ideas and Opinions*. New York: Crown.

Eldred, M. and Hanlon, M. 1981. "Reconstructing Value-Form Analysis". *Capital and Class*, No. 13.

Eldred, M and M. Hanlon. 1984. "A Reply to Gleicher". *Capital and Class*, No. 23.

Elson, Diane. 1979. "The Value Theory of Labour" in Elson (ed.), 1979.

Elson, Diane. (ed). 1979. *Value: The Representation of Labour in Capitalism*. CSE Books.

Elster, J. 1982. "Marxism, Functionalism, and Game Theory: the Case for Methodological Individualism". *Theory and Society*, 11.

Elster, J. 1986. *An Introduction to Karl Marx*. Cambridge University Press.

Engineer, M. and D. Bernhardt. 1991. "Money, Barter, and the Optimality of Legal Restrictions". *Journal of Political Economy*, 99 (4).

Feyerabend, P.K. 1981. *Realism, Rationalism and Scientific Method*. *Philosophical Papers*, Vol 1. Cambridge University Press.

Forbes, Ian. 1990. *Marx and the New Individual*. London: Unwin Hyman.

- Foucault, M. 1984. *The Foucault Reader* (ed. P. Rainbow). New York: Pantheon.
- Foucault, M. 1986. "Of Other Spaces" (trans. Jay Miscouiec). *Diacritic*, 16 (Spring).
- Freeman, Alan and Guglielmo Carchedi (eds.). 1996. *Marx and Non-equilibrium Economics*. Cheltenham: Edward Elgar.
- Ganbmann, Heiner. 1994. 'Labour and Emancipation'. *Economy and Society*, 23:66-92.
- Gale, Douglas. 1982. *Money: in Equilibrium*, Nisbet/Cambridge University Press..
- Gillies, Donald. 1993. *Philosophy of Science in the Twentieth Century: Four Central Themes*. Oxford: Blackwell.
- Gleicher, D. 1983. "A Historical Approach to the Question of Abstract Labour. *Capital and Class*, No.21.
- Gleisher, D.1985. "Note: a Rejoinder to Eldred". *Capital and Class*, No.24.
- Goodhart, C.A.E. 1975. *Money, Information and Uncertainty*. Macmillan.
- Grossman, H.I. 1991. "Monetary Economics: A Review Essay". *NBER Working Paper*, 3686.
- Gould, Carol, C. 1978. *Marx's Social Ontology*. Cambridge, Mass: MIT.
- Gouverneur, J. 1990. "Productive Labour, Price/Value Ratio and Rate of Surplus Value: Theoretical Viewpoints and Empirical Evidence". *Cambridge Journal of Economics* 14.

Gunn, R. 1989. "Marxism and Philosophy: a Critique of Critical Realism". *Capital and Class*, Spring.

Habermas, J. 1992. *Postmetaphysical Themes*. Polity.

Habermas, J. 1996. "Modernity: an Unfinished Project", in d'Entreves and Benhabib (eds.), 1996.

Hacking, Ian. 1983. *Representing and Intervening*. Cambridge University Press.

Hahn, F.H. 1972. Equilibrium with Transaction Costs. *Econometrica* 39 (3).

Hamilton, P. 1973. *Einstein*. Guildford: Lutterworth.

Harris, H.S. 1997. *Hegel's Ladder* (2 vols.). Cambridge: Hackett.

Hawking, S. 1988. *A Brief History of Time: From the Big Bang to Black Holes*. London: Bantam.

Haycock, J.W. 1992. "The Crises of Marxism in Post-Positive Perspective". *Review of Radical Political Economics*, 24(3&4).

Hegel, G.W.F. 1956. *The Philosophy of History*. New York: Dover.

Hegel, G.W.F. 1989. *Hegel: Selections*. (ed. M.J. Inwood). New York: Macmillan.

Hegel, G.W.F. 1967. *Hegel's Philosophy of Right* (trans. Knox).
Oxford University Press.

Hegel, G.W.F. 1975. *Logic*. Oxford: Clarendon.

Heidegger, M. 1962. *Being and Time*. New York: Harper and Row.

Heisenberg, W. 1989. *Physics and Philosophy: the Revolution in Modern Science*. Harmondsworth: Penguin.

Hodgson, G. 1982. *Capitalism, Value and Exploitation: A Radical Theory*. Robertson.

Hong, Hoon. 2000. Marx and Menger on Value: as Many Similarities as Differences. *Cambridge Journal of Economics* 24 (1).

Howard M. and J.King (eds.). 1976. *The Economics of Marx*. Penguin.

Hoy, David Cozens. 1996. "Splitting the Difference: Habermas's Critique of Derrida", in d'Entreves and Benhabib (eds.), 1996.

Huggett, M. and S. Krasa. 1993. "Media of Exchange in Economies with Differential Information". *Faculty Working Paper*, 93-0145. College of Commerce and Business Administration, University of Illinois at Urbana-Champaign.

Hunt, E. and J. Schwartz. 1972. "Introduction" to Hunt and Schwartz (ed.), 1972.

Hunt, E. and J. Schwartz (eds.). 1972. *A Critique of Economic Theory*. Penguin.

Hunt, I. 1993. *Analytical and Dialectical Marxism*. Aldershot: Avebury.

Hutchings, Kimberly. 1996. *Kant, Critique and Politics*. Routledge.

Ingram, David. 1996. "The Subject of Justice in Postmodern Discourse: Aesthetic Judgement and Political Rationality", in d'Entreves and Benhabib (eds.), 1996.

Itoh, M. 1980. *Value and Crisis*. Pluto.

Itoh, M. 1987. "Skilled Labour in Value Theory". *Capital and Class*, No.31.

Itoh, M. and C. Lapavitsas. 1999. *Political Economy of Money and Finance*. Macmillan.

Jones, R.A. 1976. "The Origin and Development of Media of Exchange". *Journal of Political Economy*, 84 (4, pt. 1).

Kain, Philip J. 1982. *Schiller, Hegel and Marx*. Kingston: McGill-Queens University Press.

Kant, I. 1983. *Critique of Pure Reason* (trans. N. Kemp-Smith). London: Macmillan.

Kant, I. 1990. "Grounding for the Metaphysics of Morals", in Cahn (ed.), 1990.

Karsten, S. 1990. "Quantum Theory and Social Economics: the Holistic Approach of Modern Physics Serves Better than Newton's Mechanics in Approaching Reality". *American Journal of Economics and Sociology*, 49 (4).

Kay, G. 1979. "Why Labour is the Starting-Point of Capital", in Elson (ed.), 1979.

Kenway, P. 1980. "Marx, Keynes and the Possibility of Crisis". *Cambridge Journal of Economics* 4 (23-36).

Keynes, John, Maynard. 1973. *The General Theory of Employment, Interest and Money*. London: Macmillan.

Keynes, John, Maynard. 1973-89. *Collected Writings*, Vol. X111.

King, J.E., and Howard, M.C. 1993. Is Socialism Economically Feasible? An Analysis in Terms of Historical Materialism. *Discussion Paper 1/93*. Department of Economics, School of Economics and Commerce, La Trobe University, Bundoora

Victorib 3083, Australia.

King, R.G. and C.I. Plosser. 1986. "Money as the Mechanism of Exchange". *Journal of Monetary Economics*, 17.

Kirzner, I. 1976. *The Economic Point of View*. Sheed and Ward.

Kiyotaki, N. and R. Wright. 1991. "A Contribution to the Pure Theory of Money". *Journal of Economic Theory*, 53.

Kiyotaki, Nobuhiro and Randall Wright. 1993. "A Search-Theoretic Approach to Monetary Economics". *American Economic Review*, 1993 (March).

Koopmans, T.C. 1951. "Analysis of Production as an Efficient Combination of Activities" in Koopmans (ed.), 1951.

Koopmans, T.C. 1951. *Activity Analysis of Production and Allocation*. Wiley.

Krause, U. 1982. *Money and Abstract Labour*. NLB

Krauss, L. 1990. *The Fifth Essence: the Search for Dark Matter in the Universe*. London: Vintage.

Lebowitz, Michael, A. 1988. "Is 'Analytical Marxism' Marxism?". *Science and Society* 52 (2).

Lebowitz, Michael, A. 1994. "Analytical Marxism and the Marxian Theory of Crisis". *Cambridge Journal of Economics*, 18.

Lee, Chai-on. 1993. "Marx's Labour Theory of Value Revisited". *Cambridge Journal of Economics*, 17.

Leech, J. 1958. *Classical Mechanics*. London: Methuen.

Leland, H.E. 1979. "Quacks, Lemons, and Licensing: A Theory of Minimum Quality Standards". *Journal of Political Economy*.

Lenin, V.I. 1969. *Selected Works*. London.

Li, Y. 1994. "Commodity Money under Private Information". *CARESS Working Paper*, 94-08.

Likitkijsomboon, Pichit. 1992. "The Hegelian Dialectic and Marx's Capital". *Cambridge Journal of Economics*, 16.

Likitkijsomboon, Pichit. 1995. "Marxian Theories of Value-Form". *Review of Radical Political Economics*, vol. 27 (2).

Lukacs, G. 1971. *History and Class Consciousness*. London.

Lysandrou, P. 1996. "Methodological Dualism and the Microfoundations of Marx's Economic Theory". *Cambridge Journal of Economics*, 20.

Maarek, G. 1979. *An Introduction to Karl Marx's Das Kapital*. Oxford: Martin Robertson.

Magill, K. 1994. "Against Critical Realism". *Capital and Class* 54.

Mandel, E. 1990. "Preface", in *The New Palgrave: Marxian Economics*. Macmillan.

Marsden, Richard. 1998. "The Unknown Masterpiece: Marx's Model of Capital". *Cambridge Journal of Economics*, 22.

Marx, Karl. 1964. *Pre-Capitalist Economic Formations* (ed. E. Hobsbawm).

Marx, Karl. 1965. *Selected Correspondence*. Lawrence and Wishart.

Marx, Karl and Frederick Engels. 1968. *Selected Works in One Volume*. Lawrence and Wishart.

Marx, Karl. 1969a. *Theories of Surplus Value*, Part 1. London: Lawrence and Wishart.

Marx, Karl. 1969b. *Theories of Surplus Value*, Part 2. London: Lawrence and Wishart.

Marx, Karl and F. Engels. 1970. *The German Ideology* (ed. C. Arthur). Lawrence and Wishart.

Marx, Karl. 1971. *A Contribution to the Critique of Political Economy*. Lawrence and Wishart.

Marx, K. 1972. *Theories of Surplus Value, Part III*. Lawrence and Wishart.

Marx, Karl. 1973. *Grundrisse*. Harmondsworth: Penguin.

Marx, Karl. 1974a. *Capital*, Vol.1. London: Lawrence and Wishart.

Marx, Karl. 1974b. *Capital*, Volume 3. London: Lawrence and Wishart.

Marx, Karl. 1975. *Early Writings*. Harmondsworth: Penguin.

Marx, Karl. 1976. *Capital*, Vol. 1. Penguin.

Marx, Karl. 1977a. *Economic and Philisophic Manuscripts of 1844*. Moscow: Progress

Publishers.

Marx, Karl. 1977b. *Selected Writings*, edited by David McLellan. Oxford: Oxford University Press.

McDowell, John. 1994. *Mind and World*. Harvard.

Meek, Ronald, L. 1967. *'Economics and Ideology' and Other Essays*. London: Chapman and Hall.

Meikle, Scott. 1995. *Aristotle's Economic Thought*. Oxford: Clarendon.

Menger, C. 1950. *Principles of Economics*. Free Press.

Mesaros, Istvan. 1975. *Marx's Theory of Alienation*. Merlin Press.

Mises, Ludwig von. 1977. *Planned Chaos*. Irvington-on-Hudson, New York: The Foundation for Economic Education, Inc.

Mohun, S. 1994. "A Re(in)statement of the Labour Theory of Value". *Cambridge Journal of Economics*, 18.

Mohun, S. 2000. New Solution or Re(in)statement? A Reply. *Cambridge Journal of Economics* 24 (1).

Montefiore, A. (ed.). 1983. *Philosophy in France Today*. Cambridge University Press.

Morishima, Mishio. 1973. *Marx's Economics*. Cambridge University Press.

Morishima M. and George Catephores. 1978. *Value, Exploitation and Growth*. McGraw-Hill.

Moseley, F. (ed.).1993. *Marxs Method in Capital: A Re-examination*. New Jersey: Humanities Press.

Murray, P. 1993." The Necessity of Money: How Hegel Helped Marx Surpass Ricardo's Theory of Value", in Moseley (ed), 1993.

Nicolaus, M. 1973. "Introduction" to K. Marx (1973).

Nielsen, Kai. 1989. *Marxism and the Moral Point of View*. Boulder: Westview Press.

Outhwaite, W. 1987. *New Philosophies of Social Science*. Macmillan.

Pagano, U. 1985. *Work and Welfare in Economic Theory*. Blackwell.

Panos, Eladio Febrero. 2000. A Re(in)statement of the Labour Theory of Value: a Comment. *Cambridge Journal of Economics* 24 (1).

Peffer, R.G. 1989. *Marxism, Morality and Social Justice*. Princeton University Press.

Penrose, R. *The Emperor's New Mind: Concerning Computers, Minds, and the Laws of Physics*. London: Vintage.

Perelman, M. 1999. Marx, Devalorisation and the Theory of Value. *Cambridge Journal of Economics* 23 (6).

Perlman, F. 1972. "Introduction" to Rubin (1972).

Petry, F. 1916. *Der Soziale Gehalt der Marxschen Werttheorie*. Jena: Fischer.

Plato. 1982. *The Last Days of Socrates* (ed. H. Tredennick). Penguin.

- Pratten, C.F. 1980. "The Manufacture of Pins". *Journal of Economic Literature*, Vol.18.
- Priest, G. 1985. "Contradiction, Belief and Rationality". *Proceedings of the Aristotelian Society* 86 (99-116).
- Prigogine, I. and I. Stengers. *Order Out of Chaos: Man's New Dialogue with Nature*. London: Fontana.
- Radner, R. 1968. "Competitive Equilibrium under Uncertainty". *Econometrica* 36.
- Ree, Johnathan. 1998. "Rorty's Nation". *Radical Philosophy*, 87.
- Reuten, Geert. 1991. "Accumulation of Capital and the Foundation of the Tendency of the Rate of Profit to Fall". *Cambridge Journal of Economics* 15.
- Reuten, Geert. 1995. "Conceptual Collapses: A Note on Value-Form Theory". *Review of Radical Political Economics*, vol 27 (3).
- Ricardo, D. 1987. *The Principles of Political Economy and Taxation*. Dent.
- Ricoeur, P. 1983. "On Interpretation", in A. Montefiore (ed.), 1983.
- Roberts, B.B. 1997. Embodied Labour and Competitive Prices: a Physical Quantities Approach. *Cambridge Journal of Economics* 21 (483-502).
- Robinson, Joan. 1980. "Forward" to Walsh and Gram, 1980.
- Roemer, J.E. 1981. *Analytical Foundations of Marxian Economic Theory*. Cambridge University Press.

- Roemer, J.E. (ed.) 1986. *Analytical Marxism*. Cambridge University Press.
- Roemer, John. 1988. *Free to Lose*. London: Radius.
- Roemer, J.E. 1989. "Marxism and Contemporary Social Science". *Review of Social Economy*, Winter.
- Rotheim, R.J. 1979. "On the Nature of Production and Contracts in an Arrow-Debreu Economy". *Journal of Post Keynesian Economics*.
- Rowthorne, R. 1982. *Capitalism, Conflict and Inflation*. Lawrence and Wishart.
- Rubin, I.I. 1972. *Essays on Marx's Theory of Value*. Black and Red.
- Russell, B. 1969. *ABC of Relativity*. London: George Allen and Unwin.
- Ryle, Gilbert. 1963. *The Concept of Mind*. Harmondsworth: Penguin.
- Saad-Filho, Alfredo. 1993. "Labour, Money, and 'Labour-Money': A Review of Marx's Critique of John Gray's Monetary Analysis". *History of Political Economy*, 25:1.
- Saad-Filho, Alfredo. 1995. "Concrete and Abstract Labour in Marx's Theory of Value". *School of Business and Economic Studies Discussion Paper*, E95/05. University of Leeds.
- Saad-Filho, Alfredo. 1997. "An Alternative Reading of the transformation of Values into Prices of Production". *Capital and Class*, 63.
- Samuelson, P.A. 1967. "Marx's Economics as Economics". *American Economic Review* 57, pp.616-23.

Sayer, Derek. 1979. *Marx's Method: Ideology, Science and Critique in 'Capital'*. New Jersey: Harvester.

Sayers, Sean. 1998. *Marx and Human Nature*. London: NLB.

Schwartz, M. 1998. "Critical Reproblemizations". *Radical Philosophy* 91.

Scruton, R. 1994. *Modern Philosophy: An Introduction and Survey*. London: Sinclair-Stevenson.

Shamsavari, Ali. 1991. *Dialectics and Social Theory: The Logic of Capital*. Braunton: Merlin.

Shapiro, M.J. 1993. *Reading "Adam Smith": Desire, History and Value*. Sage.

Simpson, Lorenzo, C. 1995. *Technology, Time and the Conversations of Modernity*. London: Routledge.

Smith, Adam. 1986. *The Wealth of Nations*. Harmondsworth: Penguin Classics.

Smith, Nicholas, H. 1997. *Strong Hermeneutics: Contingency and Moral Identity*. London: Routledge.

Smith, T. 1993. "Marx's *Capital* and Hegelian Dialectical Logic", in Moseley (ed), 1993.

Smith, T. 1994. *The Logic of Marx's Capital: Replies to Hegelian Criticisms*. New York: State University of New York Press.

Steedman, I. 1977. *Marx after Sraffa*. New Left Books.

Steedman, I. and P. Sweezy (eds.). 1981. *The Value Controversy*. Verso-NLB.

Sweezy, P. 1968. *The Theory of Capitalist Development*. New York: Monthly Review Press.

Taylor, Charles. 1979. *Hegel and Modern Society*. Cambridge: Cambridge University Press.

Taylor, Charles. 1989. *Sources of the Self: the Making of the Modern Identity*. Cambridge, Mass: Harvard University Press.

Taylor, Charles. 1995. *Philosophical Arguments*. Cambridge, Ma: Harvard University Press.

Thomas, P. 1994. *Alien Politics: Marxist State Theory Revisited*. London: Routledge.

Tredennick, H. 1982. "Introduction"(s) to Plato, 1982.

Walras, Leon. 1954. *Elements of Pure Economics*.

Walsh, Vivian and Harvey Gramm. 1980. *Classical and Neoclassical Theories of General Equilibrium*. Oxford University Press.

Whitehead, A. 1975. *Science and the Modern World*. Glasgow: Fontana.

Williams, M. (ed.) 1988. *Value, Social Form and the State*. Macmillan.

Williams, M. 1998. "Money and Labour-power: Marx after Hegel, or Smith plus Sraffa". *Cambridge Journal of Economics* 22 (187-198).

Williamson, S. and R. Wright. 1991. "Barter and Monetary Exchange under Private Information". *Research Department Staff Report*, 141. Federal Reserve Bank of

Minneapolis.

Wilson, D.W. 1986. "Equilibrium Theory and the law of Value". *Department of Economics Working Paper No.6 (New Series)*. City of London Polytechnic 1986.

Wilson, D.W. 1987. "Money, Mediation and Marx: a Restatement of the Quality Theory of Money". *Department of Economics, Working Paper No.11*. City of London Polytechnic.

Wilson, D.W. 1989. "On the Foundations of Marx's Value Theory: a Mathematical Model of Social Labour". *Department of Economics Working Paper, No.14*. City of London Polytechnic.

Wilson, D.W. 1991. "Abstract General Labour". *Department of Economics Working Paper, No. 16*, City of London Polytechnic.

Wittgenstein, L. 1961. *Tractatus Logico-Philosophicus* (trans. Pears and McGuinness). Routledge and Kegan Paul.

Wolton, Suke (ed.). 1996. *Marxism, Mysticism and Modern Theory*. London: Macmillan.

Wright, Crispin. 1993. "Scientific Realism and Observation Statements". *International Journal of Philosophical Studies*, vol. 1 (2).

Wright, Erik Olin, Levine, Andrew and Sober, Elliot. 1992. *Reconstructing Marxism: Essays on Explanation and the Theory of History*. Verso.