

## **The marriage of critical realism and Marxism: happy, unhappy or on the rocks?**

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### **Introduction**

Critical realism is steadily gaining ground in the social sciences and humanities. Critical realist orientated scholars are to be found in many areas such as: sociology and social theory, organisation and management studies, feminism, geography, law and economics. Marxism, despite having been unfashionable for several decades, refuses to go away and remains one of the key intellectual perspectives – a point recognised by many of its opponents. Moreover, many of those caught in the recent upsurge of ‘anti-capitalist’ sentiment are discovering the valuable lessons available from a body of thought that has been staunchly ‘anti-capitalist’ for a century and a half. The purpose of this collection, then, is to explore the relationship between critical realism and Marxism.

Broadly speaking there appear to be three (not entirely mutually exclusive) viewpoints on the nature of this relation: critical realism can add to Marxism without taking anything away; Marxism is in no need of the services of critical realism; and Marxism and critical realism have something to gain from one another. This introductory chapter consists of Steve Fleetwood (SF), John Roberts (JR) and Andrew Brown (AB) elaborating these three viewpoints, in order to give the reader a flavour of the kind of debates that are currently taking place between critical realists and Marxists. It might be added that the very existence of serious, and amicable, scholarly debate of this kind is a fair indication that both critical realism and Marxism are in a good state of intellectual health.

### **1. Critical realism: augmenting Marxism**

Before seeking a possible relationship between two entities a basis for comparison must be established otherwise the search may end up inadvertently trying to seek a relationship between chalk and cheese – with conceptual confusion following almost inevitably. In this

confusion we might conclude either that a relationship exists where actually there is none, or that no relationship exists where actually there is one. The same goes for seeking a possible relationship between Marxism and critical realism. Let us consider Marxism and critical realism in turn to see if we can establish a basis for comparison.

### *Comparing like with like*

Marxism is a body of thought which, at least in the hands of its keenest scholars, has always sought to consistently span three levels: philosophical, theoretical and practical. Dialectical materialism has generally been understood as a philosophy that grounds theoretical pronouncements such as the necessity of the value form, and the emancipatory role of the working class. In turn, these theoretical pronouncements have been used to inform political practice. What is hardly ever recognised, however, is that a range of political practices are consistent with a range of theoretical pronouncements, and a range of theoretical pronouncements are consistent with dialectical materialism. One might, for example, subscribe to dialectical materialism and to the theory that (a) the working class has been defeated, or (b) the working class is alive and well. Clearly a range of political practices will follow from the theoretical position adopted. Theory (a) leads to political support for things like new social movements whereas theory (b) leads to political support for things like the vanguard party. There is, therefore, *no one-to-one mapping between a particular (Marxist) political practice, a particular (Marxist) theory and a particular (dialectical materialist) philosophy*. The truth of this proposition lies in the (probably uncontroversial) fact that there are several competing Marxist theories (about various phenomena) and several Marxist political programmes, all perfectly compatible with dialectical materialist philosophy.

Critical realism is located at the level of philosophy and, unlike Marxism, it does not try to span three levels. Precisely because it licenses no particular political programme and particular theory, critical realism often comes in for criticism from Marxists on the ground that it is theoretically and politically sterile, or worse, that it sponsors anti-Marxist theories. If, however, there is no one-to-one mapping between a particular (Marxist) political practice, a particular (Marxist) theory and a particular (dialectical materialist) philosophy,

then criticisms based upon critical realism's alleged sterility apply to any philosophy, including one belonging to Marxism. It is, therefore, erroneous to seek a possible relationship between critical realism and Marxist *theory* or Marxist *political practice*, but not between critical realism and Marxism *at the level of philosophy*. That is to say, if a relationship exists between critical realism and Marxism, it is located at the philosophical level. Let us, therefore, approach philosophy with a little more precision.

*Critical realism: a full-blown philosophy of science*

Whilst critical realism has many things to teach us about philosophy (and many of those things are elaborated in the chapters of this collection) it is, primarily, a *philosophy of science*. Moreover, critical realism focuses neither on one, or a small number, of topics in the philosophy of science, but is wide ranging, covering topics such as: ontology, epistemology, modes of inference, nature of causality, nature of laws/tendencies, role of abstraction, distinction between essence and appearance, criterion for theory evaluation, and so on. For brevity, I refer to such an all-encompassing philosophy of science as *full-blown*. And critical realism is a *full-blown* philosophy of science. Now, whilst Marxist philosophy is not short of papers and books dedicated to various *topics* in the philosophy of science, there have been relatively few attempts to elaborate a *full-blown* philosophy of science compatible with Marxism, or as I will refer to it, a Marxist philosophy of science.

Let me tread with caution here. I am not claiming there has been no work on various *topics* in Marxist philosophy of science: I am claiming that there has been very little work that attempts to combine these various topics to elaborate a *full-blown* Marxist philosophy of science. Whilst the likes of Ruben (1979), Murray (1988), Sayer (1983) and Zeleny (1980) spring to mind, even here there seems to be more of an emphasis on repeating and re-interpreting some of Marx's own scattered ideas than on elaborating a *full-blown* Marxist philosophy of science. Moreover, there have been very few attempts to elaborate a Marxist philosophy of science that can neutralise attacks from current philosophies of science, especially recent versions of positivism and, more recently, postmodernist and poststructuralist versions. At this point, I wish to make three claims.

Only a *full-blown* Marxist philosophy of science can be used to place Marxist theories and political practices on a secure footing. This is not, of course, to claim any one-to-one mapping between critical realism, theory and practice. It is merely to recognise that a *full-blown* Marxist philosophy of science can assist in formulating the *kinds* of theories deemed appropriate by Marxists.<sup>1</sup>

Only a *full-blown* Marxist philosophy of science can successfully neutralise attacks from current philosophies of science, because many of the latter are full-blown (*non-Marxist*) philosophies of science. Marxists may not like to think that positivism is a full-blown philosophy of science but, like it or not, positivism does have an inclusive position on topics such as: ontology, epistemology, causality, law, mode of inference and has criteria for theory evaluation. The fact that it may have an inappropriate position on all these topics is beside the point here. The ability to successfully neutralise attacks from current philosophies of science is not merely a matter of scholarly and/or academic interest. The absence of a full-blown Marxist philosophy of science has allowed a vacuum to develop in the Marxist canon, which is often filled by Marxists borrowing topics from non-Marxist philosophies of science – with damaging consequences for Marxism.

Critical realism can supply the *full-blown* philosophy of science lacking in Marxism. This does not imply critical realism is replacing dialectical materialism, it is simply doing something else, it is adding to it.<sup>2</sup>

These claims could be established in various ways. For example, I could demonstrate how positivism has encouraged debates on the so called ‘transformation problem’; the (mis)use of rational choice models; the (mis)use of econometrics to test hypotheses such as the falling rate of profit. Alternatively, I could demonstrate how postmodernism and poststructuralism have encouraged the, arguably, anti-Marxist perspective referred to as post-Marxism. I will, however, try to establish these claims via one example, namely the notion of ‘tendency’.

*Laws or tendencies*

It is well known that Marx conceives of laws in terms of tendencies. In discussing the tendency for profit rates to equalise, for example, he suggests that this equalisation be ‘viewed as a tendency *like all other economic laws*’ (1984: 175 emphasis added). Moreover, the conception of law as tendency has permeated much Marxist economics ever since. The problem, however, is that the exact meaning of the term ‘tendency’ within the Marxist canon is ambiguous. Marx himself left few clues, and whilst latter day Marxists have discussed tendencies, most discussions have taken the form of (often not un-illuminating) asides to other issues.<sup>3</sup> As MacBride puts it:

These laws [i.e. tendencies] are, presumably, nothing but accurate high-level generalisations concerning a wide range of phenomena (although, to be candid, the failure to say very much about the meaning of the term ‘law’ as he uses it is one of the most gaping lacunae in Marx’s all too brief discussions of methodology. (1977; 59. See also 123-6)

Whilst it will become clear below that it is misleading to refer to tendencies as ‘high level generalisations’, MacBride’s instinct is essentially correct: there has been a failure to develop a systematic, explicit and unambiguous conception of tendency in Marxism. Ruben sees no future in the critical realist attempt to disentangle law from tendency, being:

genuinely worried that the tendency v. empirical regularity debate, if pushed hard enough, might well collapse into little more than a quibble about the use of the term ‘law’. (1979: 207)

Far from a mere ‘quibble’, the tendency v. empirical law debate is instructive in illuminating just how critical realism can place the notion of tendency on a more secure footing than it is now, and therefore, demonstrate how critical realism can add to Marxist theory without taking anything away. To do this, I take the following issues as read.

Critical realists reject (a) event regularities, and hence (Humean) laws styled as ‘whenever event x then event y’, as most unlikely features of social reality and (b) the (Humean) notion

of causality as event regularity. The critical realist is, therefore, free to (i) seek the cause of an event in something other than the event with which it is (allegedly) conjoined, and (ii) to employ a notion of causation as powers of forces. Attention thus turns away from the flux of perceived and actual events towards the *mechanisms, social structures, powers and relations* that causally govern these events. Thus is the ontology referred to as *stratified*: underlying the domain of the empirical are the domains of the actual and the 'deep'. Because of the openness of socio-economic systems, results, consequences, or outcomes *cannot* be successfully predicted but the mechanisms, social structures, powers and relations that causally govern the flux of events *can*, however, be uncovered and *explained*. Explanation usurps prediction, as the goal of science. Explanatory content provides a criterion for evaluating theories. One can now understand my reason for calling the method 'causal/explanatory'. To *explain* a phenomenon is to give an account of its *causal* history (cf. Lipton 1993; 33). Significantly, this account is not couched in terms of the event(s) that just happens to precede the phenomenon to be explained, but in terms of the underlying, *mechanisms, social structures, powers and relations* that causally govern the phenomenon. The following section puts these critical realist categories to work to elaborate a sophisticated notion of tendency.

#### *Structures, powers, mechanisms, relations and tendencies*

A complex entity possesses an intrinsic *structure* (or combinations of structures) which makes it the kind of thing it is and not another thing. The structure also endows the entity with dispositions, capacities, potentials, abilities to act in certain ways. In short, the structure endows the entity with *powers* to do certain things, but not others. And powers may *be possessed, exercised or actualised*.

- a) A power is *possessed* by an entity in virtue of its intrinsic structure, and this power endures whether or not it is exercised or actualised. The power acts transfactly.
- b) A power *exercised* is a power that has been triggered, and is generating an effect in an open system. Due to interference from the effects of other exercised powers, however,

one can never know *a priori*, what the outcome of any particular power will be. The exercised power acts transfactly.

- c) A power *actualised* is an exercised power generating its effect in an open system. The power is, however, not deflected or counteracted by the effects of other exercised powers. The actualised power does not act transfactly but factually in the sense that the power generates its effect constantly.

Let us consider these distinctions in a little more depth via the simple example of a bicycle.

- a) Once structures such as wheels, frame, saddle and handlebars are combined to form a bicycle, this entity *possesses* the power to facilitate transportation. This power endures even if the bicycle remains locked in a garden shed.
- b) A person may *exercise* the power by bringing the bicycle out of the shed and mounting it - i.e. a person triggers the power. However, due (say) to excessive alcohol consumption, strong head winds or steep gradients, the effect may not be the transportation of a cyclist from A to B. In this situation, the bicycle's exercised power is being deflected or counteracted by interference from other exercised powers.
- c) A person may *actualise* the (exercised) power and successfully cycle from A to B. The bicycle's power is not being counteracted by any other powers such as alcohol, strong head winds or steep gradients.

With this understanding of structures and powers, let us move on to the related issue of mechanisms. According to Lawson (1998: 21):

A *mechanism* is basically the way of acting or working of a structured thing... Mechanisms then exist as the causal powers of things. Structured things...possess causal powers which, when triggered or released, act as generative mechanisms to determine the actual phenomena of the world.

The key to understanding the critical realist conception of a mechanism (and eventually tendency) lies not with the notions of a power *possessed* or *actualised*, but with the notion of a power *exercised*. A possessed power is (relatively) uninteresting because it generates no effects.<sup>4</sup> An *actualised* power is (relatively) uninteresting because it is only in special circumstances that an exercised power is not interfered with. A power exercised, however, is one that has been triggered, is generating effects, is acting transfactually, and, as will become clear in a moment, is involved in generating tendencies. Being triggered is, typically, a complex process requiring that the entity enters into a web of relations with other relevant entities. A bicycle exists in relations to a shed wall, a road, sky, grass, wind, hills, gravity, cyclists (drunken and sober) and so on. If the bicycle enters into appropriate relations, (e.g. with a sober cyclist) its power is triggered, and becomes an exercised power.

It appears that the term mechanism<sup>5</sup> is a label we apply to the *ensemble* of structures, powers, and relations. Once a specific set of intrinsic structures combine to form an entity with a power, and this entity enters into appropriate relations with other entities, the power is triggered and becomes an exercised power, whereupon a tendency is generated. When we write that *a mechanism* has a tendency to x, this is, strictly speaking, inaccurate: it is the *ensemble* that has a tendency to x, and we should write that the *ensemble* of structures, powers and relations has a tendency to x. Re-working Reuten's (1997: 157) terminology we might say that the tendency 'belongs' or is 'attached' to the ensemble – not merely to the mechanism, or to the power.

Now, to write that an ensemble has a tendency to x, does not mean that it *will* x. In an open system, ensembles do not, typically, exist in isolation from one other, rather there are a multiplicity of ensembles, each with their own tendencies and these tendencies converge in some space-time location. The actual outcome of this confluence of tendencies is impossible to predict *a priori*. The tendency for bicycles to facilitate transportation, for example, depends upon the existence or absence in the same space-time location of other tendencies such as the tendency for alcohol in the bloodstream to cause dizziness; the



tendency for steep slopes or strong head winds to reduce forward momentum and so on. This is why a tendency acts transfactually.

A tendency then, metaphorically speaking, is akin to a force. When we think of a force we think of terms like: drive, propel, push, thrust, pressure and so on. The term 'tendency' relates not to any *results, consequences, or outcomes* of some acting force, such as a regularity or pattern in the resulting flux of events. *The term 'tendency' refers to the force itself.*

Now, I frequently encounter Marxists who opine that they too operate with tendencies and not laws: moreover, they do so without any help from critical realism. When the conversation gets a little deeper, however, it soon becomes clear that they are operating with a notion of tendency along the lines of some kind of loosely operating (Humean) law. From the critical realist perspective, the interpretation of tendency as some kind of loosely operating (Humean) law is, arguably, mistaken. Explaining the origin of this mistake is made easier by considering several commonly held (mis) interpretations of the term 'tendency'.<sup>6</sup>

- A tendency can be interpreted as a statistical trend such as: profits tend to fall over time. One might style this as 'Whenever event x (i.e. *passage of time*), then event y'.
- A tendency can be interpreted as a high relative frequency of a given sub-set of a class of possible events, such as: if the organic composition of capital increases, there is some probability that the rate of profit will decline. We might style this as: 'whenever event x, then event y *under some well defined probability condition*'
- A tendency can be interpreted as a counterfactual claim about what would come about under certain closure conditions such as: if the organic composition of capital increases, the rate of profit will decline *ceteris paribus*. We might style this as 'whenever event x, then event y *under conditions z*'.
- A tendency can be interpreted as a constant conjunction of events that holds with some unspecified regularity: a kind of loosely operating Humean law. MacBride (above) refers to tendencies as 'high level generalisations' (1977: 59). We might style this as 'whenever event x, then *most of the time* event y'.

- A tendency can be interpreted as an expression, outcome or result of some phenomenon such as: ‘the capitalist mode of production (CMP) inherently produces an increasing social productivity of labour (prodt) and this gets expressed in a tendential fall in the rate of profit (r)’ (Reuten1997: 160). We might style this as ‘whenever events  $x_1$  (CMP) and  $x_2$ (prodt) then event  $y$  (r) as a ‘stylised fact’.<sup>7</sup>

These interpretations are mistaken because they share a (possibly inadvertent) lapse into an empiricist, or more accurately, empirical realist mode of thinking.<sup>8</sup> These interpretations treat a tendency as a *result, consequence, or outcome*. The term ‘tendency’ is conceived of as some kind of empirically identifiable, and systematic, pattern in the flux of events. The pattern might be one of: perfect regularity, imperfect regularity, statistical regularity or ‘stylised regularity’. The important point to note here is that, contra to critical realism, none of these interpretations identify a tendency with the *force itself*. There is, however, no longer a reason for Marxists to operate with one foot tied to empirical realism. Adopting critical realism as a philosophy of science compatible with Marxism has allowed us to place the notion of tendency on a more secure footing. This is an example of how critical realism has added to Marxism without taking anything away.

## **2. Marxism does not require the services of critical realism**

Steve Fleetwood (SF) presents a highly sophisticated defence for the use of critical realism in developing a Marxist scientific theory (see also his chapter in the collection). In this short reply I want to question some of his observations concerning the incorporation of critical realism within Marxist theory. I do this, first, by making some comments on the argument presented above and then, second, by briefly outlining some of the underlying differences between Marxism and critical realism as I see them. This will enable me to suggest that a more suitable way for Marxist theory to proceed is to develop categories in line with the fundamentals of historical materialism.

### *Critical realism: augmenting Marxism?*

SF starts by quite rightly observing that there are a number of Marxisms. Specifically, he divides Marxism into political practice, theory and philosophy. Rightly he suggests that

there is no one-to-one relationship between all three. Critical realism thus presents us with a useful set of theoretical tools with which to ‘assist in formulating the *kinds* of theories deemed appropriate by Marxists’. I certainly believe that critical realism has helped Marxism to think more carefully about issues of ‘depth’, ‘causality’, ‘powers’, ‘interconnections’, and so. I also agree that a level of contingency exists between Marxist political practice, theory and philosophy. Thus Marxism does need an overarching guiding hand to connect these various factors. However, the important question here is whether critical realism can give Marxism this guiding hand.

To begin my part of discussion I would like first to air some caution about how we go about analysing the level of contingency between Marxist political practice, theory and philosophy. For it is still the case that there *must* be a *limit* to disagreement amongst Marxists about these three factors. Otherwise any debate which ensues could easily pass beyond Marxism into a standpoint that is decidedly non-Marxist. The argument about the incorporation of other methodological, theoretical and philosophical approaches into Marxism would therefore seem to rest upon the extent to which such an incorporation alters substantially the fundamentals upon which Marxism rests. I come back momentarily as to what these fundamentals might be.

SF claims that Marxism requires a ‘full-blown Marxist philosophy of science’. This is important for him because (i) there has been little work within Marxism to develop a full-blown philosophy of science and (ii) such a philosophy could be ‘used to place Marxist theories and political practices on a secure footing’. Apart from the curious fact that he fails to mention Engels’ attempt to provide such a philosophy, I think SF indicates a level of urgency about the need for such a philosophy within Marxism which is somewhat overstated. Whilst it is indeed true that a Marxist philosophy of science could aid Marxist theory and practice, it should also be remembered that Marxists have been involved in debates over a diverse range of practical issues *without* ever seeing the need to preface such debates by developing a full-blown philosophy of science. Indeed, we could take this point further. The quantitative examples wherein critical realism could be of some assistance to Marxism, namely the transformation problem, the (mis)use of rational

choice models and the (mis)use of econometrics to test particular hypotheses, have already been heavily discussed, debated and criticised by Marxists without resort to critical realism. This fact alone surely begs the question of why we need critical realism to provide a critique of quantitative approaches if it has already been achieved by ‘qualitative’ versions of Marxism.

But I think there is a more fundamental weakness at the heart of SF’s argument in that it rests on contradictory foundations. On the one hand he claims that a *Marxist* philosophy of science needs to be established. On the other hand he claims that critical realism can establish a Marxist *philosophy of science*. The first claim suggests that a Marxist philosophy of science should be developed within the remit of Marxism. The second claim suggests that a Marxist philosophy of science should be developed outside of the remit of Marxism. Obviously if Marxism is to expand its horizons then it is legitimate to use the ideas of other theories and philosophies. However, there is a crucial difference between incorporating these ideas within Marxism, but changing their form and content in line with Marxism (a *Marxist* philosophy of science), and developing a full-blown theoretical paradigm and then assessing the extent to which Marxism is compatible with that paradigm (a Marxist *philosophy of science*).

Yet SF asserts that he is merely ‘adding to’ Marxism. But this line of defence is inconsistent with his attempt to assess quantitative social theories against the qualitative paradigm of critical realism. This is because there is a tension between his assertion that he wishes to develop Marxism and his continual (sometimes implicit) fallback upon critical realism rather than Marxism to illustrate his arguments. In his chapter, for example, SF first sets out critical realist arguments *and then* fits Marx into those arguments. To flag up one illustration, in SF’s chapter, he presents an argument for the transformational model of social action (TMSA) (the critical realist argument concerning structure and agency), and then shows how Marx’s ideas fit with the TMSA. But notice here that he does not begin by first exploring the fundamentals of Marxism itself. This neglect means that he does not consider the extent to which Marx’s own insights are defective. Nor does he consider, first, the extent to which Marx’s *own* categories may be

extended and developed to take account of other social forms of life beyond the strictly 'economic' *without* the need for a full-blown *critical realist* philosophy of science. Yet some of the most fruitful developments of Marxism have attempted this. The work of the Marxist linguist, V.N. Voloshinov, is one notable example, as is the work of the Marxist legal theorist, E.V. Pashukanis. In both cases Marx's discussion of historical materialism and his critique of capitalist social relations are taken as the starting point for deriving the social form of language and law respectively.

In the discussion so far I have already hinted at what I consider to be the fundamentals of Marxism, but it would be useful at this stage if I spelt out these fundamentals in a little more detail. It would seem to me that any development of Marxist theory would need to be compatible with at least two fundamentals of Marxist theory: (i) historical materialism; (ii) the application of historical materialism to the critique of political economy as outlined by Marx in the three volumes of *Capital*. I will briefly say a few words about both.

Historical materialism is premised, at the simplest level, upon the idea that societies progress through distinctive modes of production. A mode of production is characterised by the unity of forces of production (those instruments through which concrete, everyday human labour produces useful products) with the relations of production (the form which labour takes for it to engender surplus extraction within historical periods). When *class* societies are the object of analytical attention then the relationship between forces and relations of production assumes a *contradictory* unity because this relationship is defined primarily through opposing class forces that encapsulate a form of *exploitation* (see my chapter for a fuller explanation). Methodologically speaking, Marx suggests in the *Grundrisse* that the relationship between forces and relations of production is a useful starting point with which to understand the systematic and contradictory connections within the concrete totality of a mode of production.

Marx extends these theoretical and methodological insights into his critique of capitalism. Marx by locating the contradictory unity of the forces and relations of production within

simple capitalist production. Here Marx discovers a contradiction as that obtaining between use-value of commodities and the exchange value of commodities. Simply stated, Marx wishes to understand how different commodities come to be exchanged. Marx suggests that exchange transpires in simple capitalist production through the contradictory relationship between concrete labour and abstract labour. Marx's point here is that the social form of labour under capitalism is not merely socially productive activity - 'concrete labour' - but is also a form of objectified social relations - 'abstract labour'. Under capitalism labour not only produces social products in which social labour is itself objectified, labour also produces objective social relations themselves. The commodity, representing concrete and abstract labour, both reveals and conceals these social relations by acting as a social mediation in its own right. These abstract social relations are alienating because they invoke a social compulsion, a compulsion whose ideological form Marx terms 'commodity fetishism', which is at the same time impersonal, objective and natural (*cf.* Postone 1993). This social form is specific only for capitalism. It is also a social form which can be systematically unfolded into the contradictory totality of capitalist social relations. I explore this point in more detail in the next section.

Although these fundamentals are not exhaustive, they do present us with a comparative base from which to assess the incorporation of critical realism within Marxism. They also suggest that we need to revise SF's justification for the incorporation of other theoretical frameworks within Marxism. Rather than ask after the deficiencies of different forms of Marxisms and then proceed to construct an alternative paradigm with which to remedy these deficiencies, it would be more productive to start with these fundamentals and then develop them in a manner that does not violently abstract from their basis. Obviously such a reorientation in perspective does not imply that philosophy is no longer required to guide us in understanding the world. Indeed, I agree with critical realists that philosophy is a crucial factor in clarifying existing and new concepts and categories. To show this, and to extend the critical observations of critical realism made so far, I turn to the respective philosophical legacies of critical realism and Marxism. Following this discussion I return briefly to some of SF's arguments about the incorporation of critical realism to Marxism.

### *Philosophical legacies*

It can be said with some justification that critical realism is strongly influenced by a Kantian legacy. As is well known, Kant believed that reason was the crucial instrument through which we gained knowledge about the world. This seemingly simple and common sense idea in fact challenged many of the prevailing philosophical ideas of the day. Before Kant outlined his ideas, empiricist philosophies had been widely accepted as presenting a correct standpoint about how we gain knowledge. Empiricists such as Hume and Locke had argued that we only ever gain knowledge of how the world directly appears to us. Such appearances generate ideas about the world through our experience of them. On this understanding the mind simply registers experience and passively records images of the world through the senses. Kant disputed this rather static picture of our mind. In his essay, 'What is Enlightenment?' (1784/1991), Kant defends the point that reason is a necessary prerequisite for 'man's emergence from his self-imposed immaturity' (Kant 1784/1991: 54). According to Kant, the development of reason pulled individuals out of a quagmire of dogma and set them on the royal road to transcendental critical judgement.

At a minimum, therefore, Kant argued that reason is an active and creative capacity of human beings. As a result Kant also insisted, contra empiricists, that reason imposes order and unity upon the diverse and random features of the world. Even at an intuitive level we know that we daily make connections between discrete phenomena and impose necessary and universal laws upon the world. Thus for Kant reason must have an organising capacity which goes beyond mere experience. These *a priori* faculties were necessary features of the mind (see also Sayers 1985 who provides a superbly clear discussion of Kant). From these faculties Kant constructed a philosophical system that demonstrated how we could critically comprehend the world. For example, Kant (1983) developed his transcendental position to argue for the universal properties of 'free and open discussion'. These properties rest upon three maxims: the ability to think for yourself; the ability to think from the standpoint of everyone else; and the ability to think consistently. Kant therefore developed transcendental moral laws from his construction of the *a priori* faculties of human understanding.

There are a number of reasons why critical realism can be situated within a Kantian legacy. In the first instance, critical realism is a *transcendental* social theory. At its simplest, transcendental realism aims to identify the underlying ‘causal powers’ of objects. This is achieved through a method of abstraction termed ‘retroduction’. This type of abstraction is primarily concerned to isolate the necessary and internal properties of an object, namely its ‘causal powers’. Once identified, the diverse but contingently combined determination of these properties can be examined at a more concrete level. This move is particularly important because only then will we be able to identify the outcome of the transfactually acting causal mechanism. An example might be the internal relationship between landlord and tenant, a relationship which assumes many guises in different contexts. In this way a precise definition of the object can be arrived at so that when a move is made back to the concrete one can gain a more accurate understanding of the object’s interaction with a diverse range of elements. The finished product is the movement: concrete → abstract, abstract → concrete (see Sayer 1994: 87).

Critical realists claim that abstraction can be carried out by building a model of the generative mechanism via the already existing stock of cognitive resources that we have about the phenomenon. Information is collected about the generative mechanism which, if it were to exist, would account for the phenomenon in question (Bhaskar 1989: 19-20). A three-phase scheme emerges:

...science identifies a phenomenon (or a range of phenomena), constructs explanations for it and empirically tests its explanations, leading to the identification of the generative mechanism at work, which then becomes the phenomenon to be explained; and so on. (Bhaskar 1989: 20)

Correspondingly the *intransitive* realm (the real entities and structures of the natural world) can only be explored through the *transitive* realm (models and concepts of the natural world) (Bhaskar 1978: 21-24). However, in ‘normal’ conditions closed experimental systems do not exist. Indeed the social sciences, whose object of investigation revolves around unpredictable human behaviour, do not have the luxury of experimental closed



systems. Mechanisms and causal powers cannot survive in a vacuum but only within open systems.

Critical realists thereby break from previous Kantian theories of the philosophy of science by showing that under some conditions models about the world can explore a deeper aspect of reality (Archer, *et al.* 1998: xi). Yet it is also the case that critical realism still contains residues of a form of Kantianism. This can be seen in the chosen use of the retroductive method of abstraction. Retroduction clearly stresses the necessity of thought to discover underlying realities. In particular it wishes to go beyond how the world appears because such appearances tend to conceal and to distort reality. In a manner reminiscent of Kant, it is believed that only thought at some distance from the distorting influence of appearances can explore reality. In this way a type of dualism is theoretically reimposed whereby reality is taken to be hidden behind appearances. Thought can grasp the nature of this reality, but it can only do so through the rational subject. Those causal powers eventually retroduced do not therefore share an internal relationship to the real world through either appearances or experience (Sayers 1985: 29-31).

The problems here for critical realism can be appreciated in greater depth if we momentarily pause to consider the main philosophical legacy of Marxism. Here the leading thinker is, of course, Hegel. In *The Science of Logic*, Hegel suggests that the essence of an object must *necessarily* appear to consciousness. As Hegel says when describing an object: 'It is the manifesting of its essence in such a manner that this essence consists simply and solely in being that which manifests itself' (Hegel 1812-1816/1969: 528). But even though essence reveals itself through appearance, appearance is not exactly the same as essence. This implies that even the illusions we may hold about an object are still aspects of an essence. 'Essence *appears*, so that it is now *real* illusory being, since the moments of illusory being have Existence' (Hegel 1812-1816/1969: 499-500). Correspondingly our subjective experience of an object is based upon a necessary connection with the object in question. There can be no absolute separation of the objective world and our subjective experiences of it, even if those subjective experiences only reveal partial aspects of the world. Our experience of an object and the categories we develop to explain the object are informed by

the reality of the object in one way or another. Knowledge *reflects* the object-in-itself to various degrees (see also my chapter).

This is an important point to the extent that it suggests that how we think about the world is necessarily confined within the determining limits of the world. Even so, gaining such knowledge is an evolving process wherein our initial methodological starting point is increasingly complexified as new knowledge is gained. When we therefore return to our starting point it too has become complexified as we now understand more thoroughly some of the interconnecting relationships bound up with our initial starting point within the same determining limits.

An example of Hegel's thinking here is provided by Marx. In the *Grundrisse* Marx (1858/1973) suggests that the concept 'population' presupposes an understanding of the determinative social relationships bound up within the concepts 'wage labour', 'capital', etc. These determinative social relations themselves presuppose 'thinner abstractions'. Once we have worked our way back to the most abstract and simple determinations (the thinnest abstractions, if you like) of a specific set of social relations we can then comprehend how these social relations are reflected and refracted within the concept 'population'. Only now the concept 'population' can be understood as inhering within a specific determining totality. Thus the concept 'population' is not the *beginning* of the analysis but its *result*. That is to say, the diverse determination(s) embedded within the concept 'population' can only be fully derived *after* it has been placed within the more determinate concepts comprising a systematic totality. Thus abstraction moves 'forwards', as progression ('population' is placed within a systematic closed totality), and 'backwards', as a retrogression ('population' is complexified and concretised as a moment, or social form, of the diverse forms of that totality). What we create, therefore, is a circular movement in method (Arthur 1998).

We can now see why the critical realist method of retroduction is incompatible with the Hegelian-Marxist methodological position. This can be seen more clearly through the manner in which the relationship of 'simple' and 'complex' is understood. For example, critical realists insist that we first isolate the simple and abstract structure of a causal power

and then take the analysis down further levels of abstraction in order to explore its more complex and concrete manifestations. Method is characterised by a move in thought of a simple model to a more complex model. The element connecting this movement is ‘thought’ or the *transitive* realm. This movement, however, conflates ‘thinking’ with ‘reality’ for it is believed that thinking about simple aspects of the world actually reflect simple realities whilst complex concepts reflect complex realities. In addition, it is believed that complexity is linked in some way or another to the contingent, open and indeterminate real, while simplicity is related to thought. Thought only becomes complex when it seeks to apprehend the complex structuring of reality. But, as Shamsavari (1991: 42) notes, ‘this movement...is the form in which the fixed opposition between simple and complex is reproduced rather than solved’. If this is the case then critical realists reinstate a *linear* movement of simple to complex corresponding to a movement from abstract to concrete. In other words, retrodution moves forward, but does not create the accompanying circular move of going backwards (see also Roberts 2001).

SF himself provides us with an example to illustrate the problem here. In his chapter he unintentionally presents a linear account of the underlying structures, mechanisms, relations and powers that are necessary ‘to sustain a system whereby the relations between people (as producing units) appear in the form of a relation between things (commodities)’. He wishes to explain this phenomenon through the use of ‘contrastive explanation’.

I will *not* ask: Why does labouring activity under capitalist social relations appear in the value form? Rather I will ask: Why does labouring activity under capitalist conditions appear in the value form when labouring activity under non capitalist conditions does not require this form? (p. ??)

SF’s justification for the use of contrastive explanation is to pinpoint ‘what is essential to capitalism’. But this seems a strange methodological route for a Marxist to take. For it is surely the case that Marx takes the opposite methodological route. In order to understand the specificity of capitalism Marx *begins* his analysis with capitalism. Hence his reason for starting with simple capitalist production via the commodity. From what we now know of

Marx's debt to Hegel this should not surprise us. Marx was interested in comprehending the dynamics of the systematic totality of capitalism. And when exploring this totality it made perfect sense to start an analysis from *within* that totality.

SF's debt to critical realism, however, prompts him to start at a much higher trans-historical level of abstraction, namely at the level of the material basis of human life, and then work progressively down levels of abstraction until he finally reaches capitalism. Such a route invites a logical-historical reading of human progress whereby successive models of human development are seen to naturally evolve from one to another (*cf.* Arthur 1998). Indeed, the absence of the category 'contradiction' encourages this interpretation of SF's analysis because it is difficult to see why one mode of production will necessarily be transformed into another mode of production. Instead we have a linear progression from one model to another.

This linear presentation and its corresponding complexity is shadowed by the increasing complexity of thought constructing successive complex models. Hence the move from the model of non-capitalist societies to the model of capitalist society which SF makes in his chapter. But this type of model-building also nourishes a non-historical analysis of the world in two respects. First, the specific social relations of non-capitalist societies such as Stalinism and feudalism are collapsed into one model, 'a highly abstract, stylised non-capitalist system'. Yet there is a world of difference between Stalinist and feudal societies. Second, the exploration of models instead of systems also encourages a non-historical analysis of the internal relations associated with a specific mode of production. For example, SF suggests that capitalism can be defined as 'a system whereby the relations between people (as producing units) appear in the form of a relations between things (commodities)' (p.??). However, this abstraction appears to misinterpret Marx's abstraction of the *social form* of capitalism. As I have already suggested above, commodity production under capitalism is defined through the dominance of *abstract* labour over concrete producers. This is an abstraction produced everyday by labour itself. SF's abstraction, by contrast, draws attention to the dominance of concrete commodities over individuals. But this is a dominance which has been prevalent in many non-capitalist societies. Thus we have still as

yet to discover the social form of commodity production under capitalism through this abstraction.

As a result of this underlying theoretical difference, it must be doubted whether critical realism can act as a philosophical underlabourer for Marxism. A more suitable position to take would be one that sought to develop the theoretical categories of historical materialism themselves rather than incorporate concepts and categories incompatible with historical materialism.

### **3. What contemporary Marxism can learn from critical realism**

I articulate below a view which adopts some of the respective arguments made by SF and JR, whilst disagreeing with others. SF's case for a 'full-blown' philosophy of science will be endorsed and amplified. Had SF's 'opponent' been an 'open Marxist' critic such as Gunn (1989) then the very need for Marxist philosophy would have been put into question. In this context, it will be argued, against JR, that the task of articulating such a philosophy is indeed as urgent, for contemporary Marxism, as SF suggests. Furthermore, the success of critical realism across a broad range of traditional disciplinary fields suggests that contemporary Marxism has much to learn from critical realism, not only as regards the flagging of the need for philosophy, but also as regards the content of any such philosophy. There are simply too many genuine Marxist adherents to, or sympathisers with, critical realism for the extreme rejections of critical realism recommended by some of its detractors to be wholly accepted. Structural causality, the notion of tendencies, the key distinction between thought and object, the notion of emergence, etc. must, as critical realist Marxists argue, be upheld together in a unified Marxist philosophy. But these lessons do not extend, I will argue, to the need for contemporary Marxism to embrace the *specifically critical realist* (or dialectical critical realist) articulation of structural causality, emergence, and so on. My chapter argues that E.V. Ilyenkov's Marxist philosophy provides preserves and transcends the crucial critical realist concepts. Here I briefly note the historical and theoretic context that informed Ilyenkov's philosophy.

### *Critical realism and the need for Marxist philosophy*

The content of critical realism and the diverse disciplinary backgrounds of critical realist sympathisers, provide a salient lesson to Marxism. Critical realism has attracted followers from a very broad range of disciplines in the social sciences, humanities and beyond. One explanation for this broad appeal must lie in a general dissatisfaction with the respective traditional materials taught in philosophy of science and methodology courses aimed at social scientists, and at other practitioners. It is useful, in order to comprehend critical realism's success, to distinguish two broad types of such courses. Firstly, there are courses in the philosophy of science. Secondly, there are diverse 'methodology' courses where specific methods prevalent in a particular discipline are taught.

Take, firstly, the 'philosophy of science'. Whilst there have been many diverse developments within the philosophy of science discipline itself, it remains the case that the names of Popper, Kuhn, Lakatos and Feyerabend are likely to be the first that social scientists will invoke as exemplifying the 'philosophy of science'. The debate amongst these philosophers regarding both the correct description of, and the correct prescription for, scientific progress is by no means irrelevant to social researchers. The debate sensitises the researcher to issues surrounding 'falsifiability' and to the social context of science. However, the relevance might well be described as limited. Critical realism correctly stresses that the debate does not contain much explicit reference to the nature of the mind-independent real world, even though some such world is a presupposition of the debate. It is, in other words, a largely epistemological debate, leaving the researcher without purchase on the mind-independent world that is the object of research. The impression that can be left is that any 'abstract' discourse must inherently lack such 'real world' content, hence be inherently lacking in practical salience.

Turning to the diverse 'methodology' courses, here two broad strands can usefully (if, again rather sweepingly) be picked out. On the one hand there are 'quantitative' courses concentrating, for example, on the theory and practice of statistical inference. On the other hand there are 'qualitative' courses considering, for example, the theory and practice of questionnaire design. Both quantitative and qualitative courses and methods

can, if used well, be very useful, of course. But they are *difficult* to use in practice; i.e. in the context of a real world object. And, by their very nature, such courses must focus on the *method* rather than on the *object*. The impression, once again, is left that a high level of generality necessarily implies abstraction from explicit consideration of mind-independent reality (i.e. a neglect of ontology).

The critical realist argument demonstrates that philosophy in general, and ontology in particular, need not be a mere side issue, of little practical relevance. Critical realism articulates what practitioners often already feel implicitly to be the case. There are many statements at the level of generality of philosophy that refer to the real, mind-independent world. Through such reference, these concepts are practically important. Firstly, there is the basic fact of science itself. Through the *hard practical effort* of science, knowledge of the mind-independent real world is obtained. Astonishingly, this fact is not made explicit in the debate between Popper, Kuhn and Lakatos. It may be implicitly recognised, but the failure to make it explicit leads to an unwarranted divorce of philosophy from reality. For example, the concept of ‘paradigm’ or its Lakatosian counterpart, ‘scientific research program’, refers to the realm of knowledge rather than to the object of that knowledge, the real world: to epistemology rather than ontology. Critical realism demonstrates that the Kuhnian / Lakatosian perspective must have a real world analogue in *ontological* ‘emergence’. The recognition that reality is layered in successive emergent strata is in turn able to explain the development of new ‘paradigms’ noted by Kuhn and Lakatos. The development of a new paradigm may simply correspond to the uncovering of a hitherto unknown stratum. More generally, the notion of emergence is tied to the critical realist notions of structures, mechanisms, tendencies and, for the social realm, the notions of social structure and of the emergence of mind and hence of human agency. All these notions referring to the real world, are practically useful and are located at the level of generality of philosophy. They are entwined philosophical concepts, articulated by critical realism, yet absent from the philosophy and methodology that is most familiar to practitioners and students in the human (and indeed natural) sciences.

The intuitive appeal of the critical realist ontology, coupled with the absence of ontological considerations from the philosophy and methodology traditionally encountered by social scientific practitioners, goes some way towards explaining the breadth of the appeal of critical realism. Critical realism thematises salient and general features that practitioners actually encounter in research, salient features of the real world. Thereby critical realism demonstrates that concepts at such a high level of generality (the trans-historical level) need not be lifeless, sterile or without practical import. Armed with the critical realist ontology it is possible to critique both the 'traditional' philosophy of science and the varied quantitative and qualitative 'methodologies', encountered by researchers. Critical realism foregrounds the need to adapt the research methodology to the object and not vice versa. Quantitative and qualitative methods of statistical inference can be assessed in terms of their applicability to the object. The object itself can be grasped as a natural or social structure with attendant mechanisms. As a result the most prevalent *theories* within disciplines can be interrogated on methodological grounds. For example, many theories existing under the rubric of poststructuralism, postmodernism and social constructionism stand revealed as one-sided: such theories recognise the conceptual aspect but not the objective aspect of science. The converse trend towards greater and greater mathematical sophistication within economics can likewise be recognised as one-sided. Here the problem arises from recognition of the quantitative but not the crucial qualitative characteristics of the economy and human agency.

The lesson Marxism can learn from critical realism, then, is the need to articulate Marxist and hence real-world concepts at the level of generality of philosophy, i.e. at the trans-historical level. Moreover, Marxism can recognise within the critical realist concepts, a glimpse of just what Marxist philosophy should, and, I would argue, Marx and Engel's philosophy does in fact, embrace: the concepts of structural causality, the distinction between thought and mind-independent object, the notion of tendencies, a conception of social structure and agency, the notion of emergence, the practical side of knowledge, and so on.



To illustrate the point, it is useful to consider two well-known ‘alternatives’ to critical realism, both explicitly Marxist philosophies. Firstly, there is the case of Althusserianism. The initial promise and subsequent demise of Althusserian Marxism fostered attacks on the very notion of Marxist philosophy (e.g. E.P. Thompson, Open Marxism). Ultimately Althusserian Marxism failed to uphold successfully a mind-independent reality, fallibly knowable by human agents endowed with free will. Critical realism attempts to uphold that promise, and thus is argued by some proponents (Collier 1989) to fill the specifically *philosophical* gap left by the demise of Althusserianism.

Secondly, there is the case of the many and varied strands of Hegelian influenced Marxism, as, for example, represented by JR’s contribution to this book. The recent revival of such strands has prompted the coining of a new phrase, ‘new dialectics’ (Arthur 1993). New dialectics, in all its variety, does not *stress*, in the strident fashion of critical realism, a set of philosophical concepts explicitly and clearly referring to a mind-independent reality. As a rough approximation, it is possible to characterise the varied strands of new dialectics as united by a rejection of Marx’s own philosophical remarks to the effect that Hegel is an idealist. This contrasts sharply with the strident critical realist (and dialectical critical realist) critique of Hegel. To be sure, it is possible that the philosophical content of some strands of new dialectics is very close to that of critical realism, despite the outward differences of emphasis. Thus Arthur’s chapter in this book draws upon dialectical critical realism. But for the majority of new dialecticians, the clear different outward emphasis does suggest significant philosophical differences with critical realism. Certainly, it is critical realism, and not new dialectics, that articulates explicitly the key notions of structural causality, etc.

*Why Marxism should not be ‘augmented’ by critical realism*

Why, given the lessons that can be learnt from critical realism, should Marxism not embrace critical realism with open arms? There are two related aspects to my answer. Firstly, and as JR has pointed out, it is important to recognise that there may be more than one philosophy that stresses a mind-independent reality, emergence, human agency and practice and so on. That is to say, SF’s case for a ‘full-blown’ philosophy of science,

containing key critical realist notions, a case that I have tried to amplify and extend above, does not establish the need for the *specifically critical realist* attempt to sustain such a philosophy, even where key concepts such as structural causality are endorsed. Secondly, there *are* alternative Marxist philosophical positions, able to embrace and transcend critical realism. Of course, I cannot defend this latter claim here, and the reader is referred to my chapter below but it may be useful to indicate briefly the historical and theoretical location of my preferred philosophy, *viz.* ‘materialist dialectics’. Bakhurst (1990) has demonstrated in detail that the history of Russian philosophy in the twentieth century does not display the sterility that many in the West had assumed, given the Stalinist regime. Rather, a vibrant philosophical tradition existed in defiance of the authorities. It was in this context that E.V. Ilyenkov (1977) gained prominence through his articulation of a materialist dialectics, drawing upon Marx and Engels, and upon the rich vein of philosophical debate within Russia. In this way it can be argued that Ilyenkov was able to develop a ‘full-blown’ Marxist philosophy from *within* the Marxist tradition, in the way that JR endorses above.

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## Notes

<sup>1</sup> I opt to leave a discussion of political practice out of this chapter partly for brevity, but also because, as noted above, there is no one-to-one mapping between a particular political practice, a particular theory and a particular philosophy anyway.

<sup>2</sup> Clearly, the debate between critical realists and Marxists covers more than philosophy of science, as many of the contributions to this collection show – especially those contributions from Brown, Collier, Creaven, Ehrbar, and Roberts.

<sup>3</sup> ‘Asides’ vis-a-vis laws as tendencies are to be found, e.g. in: Fine and Harris (1979); MacBride (1977); Meikle (1985); Ollman (1993); Retuen and Williams, (1989); Ruben (1979); Sayer (1983); Wilson (1991) and Zeleny (1980). One of the more detailed discussions of tendencies is Cutler *et al* (1977; part II, especially chapter 4), although even here one is left wanting more discussion. Certain other places where one would expect to

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find at least an 'aside' we find no mention at all of laws as tendencies - e.g. Farr and Ball (1984) and Murray (1988).

<sup>4</sup> This might not be strictly accurate because, to stay with the example, even the activated power of a bicycle locked in a garden shed might effect the owner's decision about using the car to travel to work. Examples like these are highly context dependent and must be treated so.

<sup>5</sup> A mechanism, typically, comprises of a set of sub-mechanisms and sub-sub-mechanisms and so on. A bicycle is a mechanism, but it comprises of sub-mechanisms such as wheels, which themselves comprise of sub-sub-mechanisms such as spokes and so on. See Jessop's notion of tendencies as being 'doubly tendential' in this collection.

<sup>6</sup> This section draws heavily on Lawson 1997. Hausman (1992, section 8.1) also provides a useful discussion of tendencies.

<sup>7</sup> My necessarily brief comments here do not do justice to the sophistication of Reuten's work. He is well aware of the notion of tendency used by critical realists which he refers to as a "power notion of tendency" (1997: 157). His claim is that, despite considerable ambiguity even in Marx's work, Marx probably does not operate with tendency as power, but with tendency as result. If Reuten is correct, and Marx does operate with tendency as result, then (in my humble opinion) Marx is mistaken.

<sup>8</sup> This is a typical example of how the vacuum created by the absence of a full-blown Marxist philosophy of science is often filled by Marxists borrowing topics from non-Marxist philosophies of science – with damaging consequences for Marxism.

## **Bibliography**

- Archer, M., Bhaskar, R., Collier, A., Lawson, T., and Norrie, A. (1998) 'General Introduction' in M. Archer, R. Bhaskar, A. Collier, T. Lawson and A. Norrie (eds.) *Critical Realism: Essential Readings*, London: Routledge.
- Arthur, C. (1998) 'Systematic Dialectics', *Science and Society* 62 (3): 447-459.
- Arthur, C. (1993) 'Review of Ali Shamsavri's *Dialectics and Social Theory: The Logic of Capital*', *Capital and Class* 50: 175-80.
- Bakhurst, D. (1991) *Consciousness and Revolution in Soviet Philosophy: From the Bolsheviks to Evald Ilyenkov*, Cambridge: Cambridge University Press.
- Bhaskar, R. (1978) *A Realist Theory of Science*, 2<sup>nd</sup> edition, London: Verso.
- (1989) *Reclaiming Reality*, London: Verso.
- Collier, A. (1989) *Scientific Realism and Socialist Thought*, Hemel Hempstead: Harvester Wheatsheaf.
- Creaven, S. (2000) *Marxism and Realism: A Materialistic Application of Realism in the Social Sciences*, London: Routledge
- Cutler, A., Hindess, B., Hirst, P. and Hussain, A. (1977) *Marx's Capital and Capitalism Today*, London: Routledge & Keegan Paul.
- Farr, J. and Ball T. (eds) (1984) *After Marx*, Cambridge: Cambridge University Press.
- Fine, B. and Harris, L. (1979) *Rereading Capital*, London: Macmillan
- Gunn, R. (1989) 'Marxism and Philosophy: A Critique of Critical Realism', *Capital and Class* 37: 86-116.
- Hausman, D. (1992) *The Inexact and Separate Science of Economics*, Cambridge: Cambridge University Press.
- Hegel, G.W.F. (1812-1816/1969) *Science of Logic*, translated by A.V. Miller, London: Allen and Unwin.
- Ilyenkov, E.V. (1977) *Dialectical Logic: Essays on its Theory and History*, Moscow: Progress, translated by H. Campbell Creighton.

- Kant, I. (1784/1991) 'An Answer to the Question: What is the Enlightenment?' in H. Reiss (ed.) *Kant's Political Writings*. Cambridge: Cambridge University Press.
- Kant, I. (1983) *Critique of Pure Reason*, translated by N. Kemp-Smith, London: Macmillan.
- Lawson, T. (1997) *Economics and Reality*, London: Routledge
- Lipton, P. (1993) *Inference to the Best Explanation*, London: Routledge
- MacBride, W. (1977) *The Philosophy of Marx*, London: Hutchinson
- Marx, K. (1858/1973) *Grundrisse*, London: Pelican.
- (1984) *Capital*, vol. III, London: Lawrence and Wishart.
- Meikle, S. (1985) *Essentialism in the Thought of Karl Marx*, Gloucester: Duckworth
- Murray, P. (1988) *Marx's Theory of Scientific Knowledge*, Atlantic Highlands: Humanities Academic Press.
- Ollman, B. (1993) *Dialectical Investigations*, London: Routledge.
- Postone, M. (1993) *Time, Labor and Social Domination: A Reinterpretation of Marx's Critical Social Theory*. Cambridge: Cambridge University Press.
- Reuten, G. (1997) 'The Notion of Tendency in Marx's 1894 Law of Profit', in F. Mosely and M. Campbell (eds) *New Investigations of Marx's Method*, New Jersey: Humanities Press.
- Retuen, G. and Williams, M. (1989) *Value-Form and the State: The Tendencies of Accumulation and the Determination of Economic Policy in Capitalist Society*, London: Routledge
- Roberts, J.M. (2001 forthcoming) 'Realistic Spatial Abstraction? Marxist Observations of a Claim within Critical Realist Geography'. *Progress in Human Geography*.
- Ruben, D-H. (1979) *Marxism and Materialism: A Study in Marxist Theory of Knowledge*, Sussex: Harvester Wheatsheaf.
- Sayer, A. (1994) *Method in Social Science: A Realist Approach*, 2<sup>nd</sup> edition, London: Routledge.
- Sayer, D. (1983) *Marx's Method: Ideology, Science and Critique in 'Capital'*, London: Macmillan
- Sayers, S. (1985) *Reality and Reason*, Oxford: Basil Blackwell.
- Shamsavari, A. (1991) *Dialectics and Social Theory: The Logic of Capital*, Devon:

Merlin Books.

Wilson, H. (1991) *Marx's Critical Dialectical Procedure*, London: Routledge

Zeleny, J. (1980) *The Logic of Marx*, Oxford: Basil Blackwell.