

# Developing Realistic Philosophy: From Critical Realism to Materialist Dialectics

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## Abstract

This paper compares the (relatively little known) ‘materialist dialectics’ of E.V. Ilyenkov to the ‘critical realism’ and ‘dialectical critical realism’ of Roy Bhaskar. The latter author specifies an ontology of ‘emergence’ and ‘stratification’. He demonstrates that, not only a critique of post-modernism, but an *outflanking* of much contemporary Marxist work can be achieved on the basis of such an ontology. For example, the ‘new dialectics’ interpretation of Marx and Hegel (Arthur 1993) remains largely silent on the ‘emergence’ of thought from material body; yet, critical realism shows that a specification of the mind-body relation is of utmost importance. Not *despite*, but *because* of its great strength, the paper undertakes an ‘immanent’ critique of the critical realist ontology. Drawing upon Ilyenkov’s interpretation of Spinoza, the paper argues that the critical realist articulation of stratification and emergence collapses into (essentially Humean) scepticism. The underlying reason for this collapse is argued to be the non-identity of thought and being generated by the critical realist theory of mind. On Ilyenkov’s interpretation, Spinoza’s articulation of mind and body sustains the materialist identity, as well the opposition, of thought and being. Through this identity-of-opposites, the notions of ‘stratification’ and ‘emergence’ are preserved but raised to a new conceptual level. Ilyenkov’s novel interpretation of Spinoza has far reaching implications. These are illustrated via a brief re-examination of the Marx-Hegel relation.

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## Developing Realistic Philosophy: From Critical Realism to Materialist Dialectics

### (1) Introduction

Scepticism and relativism, in the form which will generically be referred to as 'post-modernism' below, dominate much of contemporary academia. Both a basic scepticism as to the possibility of knowledge and a milder scepticism as to the possibility of any 'grand theory' of the 'modernist' type, such as Marxism, is common within the arts, humanities and social sciences. A correspondingly relativistic ethics is also prevalent. Critical realism provides one approach towards a critical appreciation of post-modernism. On the critical realist view, post-modernism is correct to embrace diversity and to recognise the theory-ladenness of observation. Yet, according to critical realist tenets, post-modernism fails to recognise that a mind-independent reality (fallibly knowable) is a necessary presupposition of observation. Indeed, according to critical realism *any* human act presupposes a reality independent both of concepts and of the senses.

Having established the necessity to base philosophy, against post-modernism, upon a firm conception of the mutual irreducibility of subject and object, critical realism claims to overcome all conceptual problems, such as that of scepticism, engendered by that distinction. To make good this claim, critical realism is led to specify, in contradistinction to any reductionist ontology, an ontology of 'emergence' and 'stratification'. Critical realism demonstrates that, not only a critique of post-modernism, but an *outflanking* of much contemporary Marxist work can be achieved on the basis of such an ontology. To take one example, the recent growth of a 'new dialectics' interpretation of Marx and Hegel remains largely silent on the 'emergence' of thought from material body,<sup>1</sup> yet critical realism shows that a specification of the mind-body relation is of utmost importance (see Bhaskar's comments on Tony Smith in Bhaskar 1993 [Henceforth *Dialectic*], p. 184 and p. 245). Despite these great strengths of critical realism (or even *because* of them) the bulk of this paper undertakes an 'immanent' critique of the critical realist ontology.

The critique has a negative and a positive aspect. On the negative side, the paper develops the critical realist articulation of emergence and stratification into a flat contradiction. The critical realist emergence theory of mind is shown to be untenable given the fluidity and generality of human action; more generally, the critical realist notion of stratification is shown, as a result of the 'non-identity' of thought and being generated by the flawed theory of mind, to lead to (essentially Humean) scepticism. On the positive side, the basic contradiction of critical realism is overcome: a materialist theory of the identity, as well as the opposition, of thought and being is presented; based on this theory the notions of emergence and stratification are preserved but on a new and higher level than critical realism (this is a fundamental development, 'supersession' or 'transcendence' of critical realism).

The materialist and dialectical philosophy that emerges as the positive aspect of the critique (and that inspires the negative aspect) is not well known. Though a 'materialism', the

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<sup>1</sup> A recent symposium on Marxist-Hegelian dialectics contained not one direct reference to the mind-body problem (*Science and Society* 1998, 62, 3).

philosophy does not embrace the reductionist identity theory of mind labelled ‘materialism’ and adopted by mainstream philosophy (see Searle 1992, Burns 2000 and Bhaskar 1989, ch. 3). Though a ‘materialist dialectics’, the philosophy has nothing to do with, indeed is utterly hostile towards, the Stalinist orthodox philosophy which served to give the term ‘dialectical materialism’ a very bad name. Instead, both the negative and positive aspects of the critique stem from the ‘materialist dialectics’ developed by the Soviet philosopher E.V. Ilyenkov. In particular, the paper draws heavily upon Ilyenkov’s interpretation of Spinoza as providing the abstract foundation of materialist dialectics (Ilyenkov 1977, Essays 1 and 2). Ilyenkov’s ideas are little known because he draws upon distinct and isolated debates amongst post-war East European philosophers; debates that flourished under the temporarily relaxed regime of Khrushchev, only to be choked when orthodoxy reasserted its rule (Bakhurst 1991; Pilling 1980; Banaji 1979).

The paper is ordered as follows. Section 2 presents and critiques critical realism and dialectical critical realism. Section 3 demonstrates how Ilyenkov’s interpretation of Spinoza can be presented as a transcendence of critical realism and dialectical critical realism. The section goes on to indicate briefly the novel conception of the Marx-Hegel relation sustained by this transcendence. Section 4 concludes.

## **(2) Critical Realism and Dialectical Critical Realism: Presentation and Critique**

‘Critical realism’ is not a settled term and the development of ‘dialectical critical realism’ has caused controversy amongst critical realists. Having outlined the relevant context of the controversy, and the basic tenets of critical realism, this section goes on to suggest a resolution to the controversy. From the vantage point of the proposed resolution, a critique of the essence of critical realism and dialectical critical realism is then put forward.

### *The Origins and Theoretical Location of Critical Realism*

Critical realism is located by Bhaskar within a loose hierarchy of ‘realisms’: ‘realism’; ‘scientific realism’ and ‘critical realism’.<sup>2</sup> The terms are ordered by the generality of their meaning so realism includes but is not exhausted by scientific realism which in turn includes but is not exhausted by critical realism. As used by philosophers the term ‘realism’ does not refer to any particular school or position. Rather, it has a very broad meaning, connoting any philosophy that includes some significant degree of *mind-independence* of things.<sup>3</sup> ‘Scientific realism’ is a term pertaining to the philosophy of science (both natural and social). It refers to all positions that assert the independence of the objects of science from scientific practice.

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<sup>2</sup> Bhaskar looks at the varieties of realism in *Reclaiming Reality* (1989) [henceforth *RR*], pp. 190-191 and more extensively in *Scientific Realism and Human Emancipation* (1986) [henceforth *SRHE*], pp. 5-10. His definitions will be compared with those offered here in the proceeding footnotes. See also Hausman (1998).

<sup>3</sup> This is the definition given, for example, by *The Oxford Companion to Philosophy* (1995), pp 746-748. Bhaskar gives an even wider definition of ‘realism’, viz., ‘any position ... which asserts the existence of some disputed kind of entity (universals, material objects, causal laws, numbers, probabilities, propositions, etc.’ (*SRHE*, p. 5).

Often the criterion for the independence and reality of these objects is their causal power: if a thing causes some effect then it is real. Important authors within this category, from the critical realist perspective, include Hanson (eg. 1963), Harre (eg. 1970) and Hesse (eg. 1974).<sup>4</sup> The origins of ‘critical realism’, a subset of scientific realism, will be explained below.<sup>5</sup>

The most prominent advocate of critical realism, and author responsible for its original systematisation (though not its sole creator), is Roy Bhaskar. Bhaskar offers a particular realist account of natural science in his *A Realist Theory of Science* (1975; second edition 1978 [henceforth *RTS*]) which he terms ‘transcendental realism’. He views this account as a ‘synthesis’ (*RTS*, p. 9) or ‘systemisation’ (*PON*, p. 2) of two strands within the philosophy of science: a scientific ‘realist’ strand exemplified by the work of the authors mentioned in the previous paragraph and a strand, possibly more widely known, associated with such authors as Kuhn, Popper, Lakatos, Feyerband, etc., emphasising the social character of science and the process of scientific development<sup>6</sup> (these strands are not intended as precise or exhaustive distinctions). He advocates a suitably qualified version of transcendental realism, labelled ‘critical naturalism’, to account for social science in his second key book, *The Possibility of Naturalism* (1979; second edition 1989), drawing upon social theory literature; Althusser being an important influence.

‘Critical naturalism’ and ‘transcendental realism’ are now usually drawn together as ‘critical realism’ (*RR*, pp. 190-191) which, in turn, has come to designate basic ‘critical realist’ tenets evident in Bhaskar’s work, rather than all the detailed arguments of his seminal texts and of his subsequent work (see below). A group of critical realists can be discerned who share, to a greater or lesser extent, these tenets, some of whom may be characterised as directly ‘following’ Bhaskar (Collier 1994, Lawson 1997, Pratten 1998), others at least clearly engaged in the same ‘research programme’ within which Bhaskar has become most prominent (Outhwaite 1987, Sayer 1992, Jessop 1995). Some of this group are, or have been in the past, associated with the *Radical Philosophy* journal around which critical realism first came to prominence in the 1970’s (the introduction to Mepham and Ruben 1979 is a useful guide to the journal’s discourse at the time). There is no hard and fast distinction between scientific realists who can be labelled ‘critical realist’ and those who cannot. Moreover there is not total agreement within the critical realist group. Rather, there is a continuum of opinion within critical realism which forms part of the wider continuum which is scientific realism.<sup>7</sup>

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<sup>4</sup> Bhaskar’s definition (*SRHE*, p. 5) is equivalent to that given here. He does not make the causal criterion explicit, though it is evident in his work, eg., *The Possibility of Naturalism* (1979; second edition 1989 [henceforth *PON*]), p. 12.

<sup>5</sup> Bhaskar presents his own view of the origin and basic meaning of the term ‘critical realism’ in *RR*, ch. 9.

<sup>6</sup> This is a very important element of Bhaskar. The first strand influences what he terms the ‘intransitive dimension’ of science and the second strand the ‘transitive dimension’. These terms are explained below. Bhaskar argues that the two strands must be united under one ontology - furnished by Bhaskar himself as the essence of ‘transcendental realism’ - if their respective insights are to be upheld and positivism overcome.

<sup>7</sup> An author need not openly subscribe to the label ‘critical realist’ to be included within the characterisation of it presented here. For example, Sayer (1992) never uses the term ‘critical realist’ but can be usefully characterised as such (he emphasises the methodological and transitive elements of critical realism and adds a detailed analysis of abstraction, see below). Bhaskar in a similar manner characterises Issac (1987), and others, as ‘critical realist’. See *RR*, ch. 9. - the reference to Issac is given in fn. 30. The characterisation may best be regarded as one sympathetic to Bhaskar’s own usage of the term; he too

### *Critical Realism and Dialectical Critical Realism*

If the foregoing raises the question of just what the basic tenets of critical realism are, given that it is not simply ‘whatever Bhaskar writes’, then the development of Bhaskar’s work from his seminal texts into what he now terms ‘*dialectical* critical realism’ (*Dialectic*; Bhaskar 1994) makes an answer to that question of urgent importance. This is because dialectical critical realism has been given a mixed reception not only outside of critical realism but also within the critical realist community. For one thing, dialectical critical realism is not widely incorporated into contemporary critical realist discourse. An example is provided by Tony Lawson and other critical realist economists, such as Steve Pratten, Steve Fleetwood and Clive Lawson, who mention dialectical critical realism only rarely. Furthermore, there is explicit unease, even hostility, towards dialectical critical realism amongst some critical realists: Joseph (1998) provides a recent and relatively mild example.

The presentation below will, in a very stripped down way, affirm Bhaskar’s own view of the nature of critical realism and of dialectical critical realism. In short, the basic tenets of critical realism are two-fold: positively, the ontological notions of stratification and emergence; negatively, the critique of Western thought in terms of the so called ‘epistemic fallacy’. The basic tenet of dialectical critical realism is the notion of ‘real absence’ (this provides a second critique of Western thought in terms of ‘ontological monovalence’ which is simply refers to the lack of a concept of ‘real absence’). With Bhaskar, it will be argued that the notion of ‘real absence’ is implicit in the basic tenets of critical realism. The notion crystallises and clarifies those tenets; its development deepens and extends them to yield dialectical critical realism. Thus dialectical critical realism is indeed the deepening and enrichment of critical realism that Bhaskar declares it to be (*Dialectic*, p. xiii).

#### *Basic Tenets of Critical Realism: Stratification and Emergence*

The key notions for the critical realist ontology are that of ‘emergence’ and ‘stratification’ (Collier 1989, 1994 provides important discussions of emergence additional to those scattered throughout Bhaskar’s work). These notions provide an answer to a simple question: what is the relation between the different objects of science such as sub-atomic entities, atoms, molecules, cells, neurons, minds and social structures? One prominent answer to this question is that defining ‘reductionism’. On the reductionist view, only one set of objects of science truly exist such that all other objects are completely reducible to these ‘ultimate entities’ and so *do not really exist*. Given the list above, then the ultimate entities are sub-atomic; all the other objects listed are no more than an agglomeration of sub-atomic phenomena and so have no real or causal status. Another answer, particularly associated with ‘dualist’ theories of the relation between mind and body, is that two (or more, in which case the answer could be deemed ‘pluralist’) of the objects listed above (such as mind and body) both exist but do so entirely independently of one another such that they have no necessary relation. The critical realist notions of stratification and emergence reject both the reductionist

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might characterise certain authors as critical realists who may themselves prefer the term ‘scientific realist’. The definition is becoming more accepted; for example Sayer (1995) is happy to describe himself as a critical realist.

and the dualist or 'pluralist' conceptions. On the critical realist view, the different objects of science are real; established as such by their causal power. Thus reductionism is rejected. At the same time, necessary relations hold between the different objects such that dualism or 'pluralism' is rejected.

The relations between different objects of science are characterised by critical realism in terms of 'strata'. Take the important example of the emergence of 'mind' from body (see *PON*, ch. 3). According to critical realism, some, as yet little understood, (presumably neurological)<sup>8</sup> structure of the brain and central nervous system [CNS] exists at one 'stratum' of reality. Thoughts exist at another 'stratum' of reality. Although science, as yet, understands little of the processes involved, the relation between the (little known) neurological stratum and that of thoughts is one of 'emergence'. Thought is a *real* and *emergent power* of some complex neurological structure of the brain and CNS. This means that, without the brain and CNS, thoughts would not exist but that, at the same time, the brain and CNS are not identical to thoughts. Rather, thoughts 'emerge' from some (as yet unknown) neurological structure; this structure is the 'real essence' of thought. In critical realist terminology the stratum of thought is emergent from the (presumably) neurological stratum below it, and yet 'rooted in' that stratum. Bhaskar dubs his theory of mind 'synchronic emergent powers materialism' [SEPM]. The notions of 'rootedness' and 'emergence' hold for all strata.

The basic conception of stratification and emergence outlined above is intuitively appealing, especially since the invocation of any such stratified ontology is conspicuous by its absence from the mainstream philosophy and philosophy of science literature most familiar to social scientists. The absence is explained by critical realism in terms of an adherence by the mainstream to the 'epistemic fallacy'.<sup>9</sup> This is the negative defining tenet of critical realism. Bhaskar claims that, in general, Western philosophy has tacitly, or otherwise, considered statements about reality to be identical with or, at least, reducible to, statements about knowledge of reality. The irreducible difference between knowledge and its object, substantiated by SEPM, reveals such a view to be fallacious. The fact that knowledge is constituted by concepts and sensations does not mean that all of reality is so constituted. Any ontology must refer to more than just sensations and concepts, it must also refer to the real objects outside of thought. SEPM establishes that the 'real essence' of thought is some (presumably neural) structure of the brain and CNS. This is an essence very different to that of the objects of thought such as electrons, atoms, molecules, etc. In this almost trivial and yet fundamental way, thought is non-identical with, or 'non-isomorphic' to, its object (a 'reflection' theory of knowledge is ruled out). Thus, the objects of thought are essentially independent of the process by which thought attempts to grasp them (though, crucially for this process, they may causally interact with thought). Therefore, statements referring to real objects (ontological statements) are not the same as, nor derivable from, statements referring to the process of knowledge acquisition (epistemological statements). It is an 'epistemic fallacy' to consider otherwise.

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<sup>8</sup> Bhaskar leaves open the question of whether or not the structure underlying thought will, once uncovered, be best defined in neurological (and / or other well known) terms, or in some new terminology, hitherto absent from scientific discourse (*PON*, pp. 97-98).

<sup>9</sup> The 'epistemic fallacy' is defined in *Dialectic*, p. 397.

Having outlined the defining tenets critical realism, it remains to compare these tenets to the defining tenet of dialectical critical realism. Firstly, it will be helpful to elaborate upon the critical realist notion of stratification. Then it will be possible to show how the basic tenet of dialectical critical realism - the notion of 'real absence' - actually crystallises and clarifies the basic tenets critical realism. Finally, a consideration of the general dialectical critical realist understanding of processes, will introduce the new terrain that the notion of 'real absence' encompasses. Thus dialectical critical realism will be argued to preserve and develop critical realism.

### *The 'External' Relation of Strata in Critical Realism*

On the basic critical realist conception a lower stratum, such as the neurological stratum, provides the condition of existence of the stratum above it. As such the higher or emergent stratum is *necessarily* related to the root stratum. On the other hand, the root stratum can exist without the higher stratum; it is not necessary for the entities at the lower stratum to produce the higher stratum - neurons do not necessarily come together to produce thought; equally, hydrogen and oxygen do not always combine to produce water. Thus, from this perspective, the relation between an emergent and a root stratum is *asymmetrically internal*. The higher stratum is necessarily (internally) related to the lower stratum but the lower stratum is only contingently (externally) related to the higher stratum. In fact, a move beyond this basic critical realist understanding of stratification reveals that the relationships between critical realist strata are subtle and complex. Collier, for example, distinguishes *three* different types of possible relationship ('ontological presupposition', 'vertical explanation' and 'composition').<sup>10</sup> Below, a sense in which a higher stratum can be considered external to the stratum from which it emerges will be developed. Clearly, this is a different sense of 'external' to that employed above. The two senses of the term 'external' are complementary to one another, in this case, despite the apparent contradiction between them. This subtle development of the critical realist conception opens the way for the subsequent presentation of dialectical critical realism, and of the relationship of dialectical critical realism to critical realism.

It is helpful to start from a familiar type of relationship, as exemplified by the landlord - tenant relationship. This is an oft used exemplar of social relationships in critical realist literature (other typical examples include wage labour - capital and husband - wife).<sup>11</sup> In this type of relationship one pole of the relation 'implies' the other pole: thus, the notion of a landlord implies the notion of a tenant and the existence of a landlord implies the existence of a tenant. Note that the 'implication' holds for both thought and reality. It is possible to consider the notion of 'landlord' without *explicitly* recognising the necessary relation to a tenant but that notion *must* be at least *implicit*. In other words, it is impossible to grasp adequately one pole of this type of relationship without grasping the other pole adequately.

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<sup>10</sup> Collier (1994), pp. 130-134.

<sup>11</sup> Almost invariably, one or more of these examples is used in expositions of the critical realist conception of social structures.

The critical realist conception of the relationship between strata (most clearly, natural strata) can be understood in contrast to the type of relationship just outlined. On the critical realist view, a set of powers at a higher stratum, such as, for example, the powers of water (eg. boiling at 100 degrees, transparency, ability to quench a thirst, etc.) can be understood adequately without any knowledge - implicit or explicit - of the structure, at the stratum below, that generates these powers (H<sub>2</sub>O as it turns out, in the case of water). Thus, the notion of a molecular structure, such as H<sub>2</sub>O, is, initially, no more than a scientific hypothesis competing with other hypotheses to explain observed powers such as those of water. 'Water', its powers (transparency, boiling point, etc.), has first to be grasped adequately before the stratum below is uncovered (before H<sub>2</sub>O is brought to light). There is *nothing* explicit or implicit in the adequate notion of powers at the higher stratum that enables the scientist to single out a unique underlying structure defining a new stratum. Instead, it is the task, ultimately, of scientific *experiment* to evaluate alternative hypotheses; hypotheses that may, without experiment, remain equally plausible. In *this specific sense* the higher stratum can be said to be 'external' to its root.<sup>12</sup> This sense follows from the basic 'non-identity' or 'non-isomorphism' between concept and object, outlined above. For, this non-identity entails a view of the 'fallibility' of knowledge that precludes an explicitly or implicitly necessary (one-to-one) connection between current knowledge and new knowledge.

### *The Stratified Ontology of Dialectical Critical Realism*

The subtlety of the critical realist notion of stratification is well captured and developed by dialectical critical realism; or so it is argued below.<sup>13</sup> The sense in which the relation between a higher (emergent) and lower (root) stratum is external gains suitably nuanced recognition through the following closely related features of dialectical critical realism (all recurrent themes in *Dialectic*): the emphasis on difference over unity; the stress on totalities which are 'subordinate', 'partial', 'open' or 'incomplete'; the non-linearity of the critical realist dialectic; the corresponding polemic against Hegel and 'cognitive triumphalism'; more generally, the notion of 'real absence' as the keystone of dialectical critical realism. These related features are considered in turn below.

It is well known that the relation between 'unity' and 'difference' is granted some considerable importance within the dialectical tradition. The critical realist 'stratified' ontology provides a particular slant on this aspect of dialectics. The notion of stratification gives substance to the dialectical notions of unity and difference. On the one hand, as equal members of the same hierarchy, strata have an aspect of unity (dualism or pluralism is rejected). On the other hand, the strata are not the same as, nor reducible to, one another; they have an aspect of difference (reductionism is rejected). The question then arises: is unity or difference of greater weight or significance? The discussion above emphasised that there is nothing explicitly or implicitly present in an adequate conception of the emergent stratum that connects it uniquely to the conception of the root stratum. Each stratum is constituted by its own *sui generis* causal powers (and liabilities) which are, as detailed above, adequately

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<sup>12</sup> This sense is implicit in the critical realist literature but has not previously been made explicit to the author's knowledge.

<sup>13</sup> The presentation below attempts to strip the relationship between critical realism and dialectical critical realism down to its bare essence. At no point, in *Dialectic*, does Bhaskar offer such a presentation.

conceptualised in isolation from any concept of the root stratum. This is a matter of ontological significance. For, if an adequate concept of the emergent stratum does not require the presence of a concept of the root stratum, then, in *reality*, there is nothing *present* in the emergent stratum connecting it to the root stratum. Because of this then it is the aspect of difference that requires emphasis within the critical realist ontology. At the same time it is clear that the dialectical critical realist emphasis on difference is just that: an *emphasis* rather than an absolute dichotomy. This stress upon difference is counterposed by Bhaskar to Hegel's alleged overemphasis on unity arising (according to the interpretation of Bhaskar offered here) from Hegel's failure to recognise that the *sui generis* emergent powers can be comprehended adequately in relative isolation.

A second well known and much contested theme within the dialectical tradition, closely related to that of unity and difference, is that of 'totality'. Once again the critical realist stratified ontology lends itself to a particular slant on this issue. Whereas Hegel allegedly champions a notion of one single, all-encompassing and 'complete' totality, Bhaskar argues for a conception of 'multiple' totalities which may be 'subordinate', 'partial', 'open' or 'incomplete'. The critical realist conception of stratification contributes to Bhaskar's argument in at least two ways. Firstly, the sense in which a higher stratum is externally related to a lower stratum entails that there could, in principle, be an infinite number of strata below any given strata; these strata could be related in all manner of different ways and there is no reason why their character should be shaped primarily by the totality of their relations. Indeed, given that they can be grasped adequately in relative isolation then an all encompassing totality must be of secondary significance. Secondly, the point that a lower stratum is externally related to a higher stratum ensures that there is always the possibility, indeed likelihood, of newly emergent strata (most importantly, the possibility of new social structures brought about by human agency), so that the real totality is forever incomplete and open.

The question of the 'linearity' or otherwise of the dialectic is most easily grasped in terms of epistemological issues regarding the nature of the development of knowledge. Does knowledge display a single line of development or is it inherently multifaceted and uneven? Such epistemological considerations are addressed below. It is specifically ontological notions that are under consideration here. In ontological terms, the critical realist and dialectical critical realist stress on difference - the sense in which a stratum is such that it can be grasped in relative isolation - lends itself to the view that the relation between strata is not that of a linear development of one single thing or 'substance' rather it is non-linear; it is a 'leap' from one thing to another, reflected in the leap from a concept of a higher stratum to the concept of its root.

Finally, the keystone of dialectical critical realism, the notion of 'real absence', expresses with precision the subtle nature of the relation between strata within critical realism as elaborated above. The term 'absence' is germane because it expresses precisely (and in contradistinction to Hegel) that there is, or need be, nothing explicitly or implicitly *present* in a given stratum that is intrinsically connected to the lower stratum. The complementary sense in which a higher stratum *is* necessarily related to its root, despite the emphasis on difference, is expressed through the dialectical critical realist view that the absence of lower or higher strata is itself a matter of ontology; absences are *real*. Bhaskar expresses this idea most succinctly - if

apparently contradictorily - in the view that the absence from a given stratum of the lower and higher stratum is a case of the 'presence' of an 'absence'. As in the case of linearity, the motivation for the notion of 'real absence' can best be understood from the perspective of the critical realist epistemology. This is because the move to epistemology entails consideration of the *process* of scientific development and the notion of 'real absence' is key to the dialectical critical realist understanding of any process (in terms of dialectical critical realism, the move from a focus on the notion of stratification to a focus upon the notion of process is a move from the 'first moment' of dialectical critical realism to the 'second edge' of dialectical critical realism). Once epistemology has been considered it will be possible to present the broader features of Bhaskar's polemic against Hegel and to summarise critical realism and dialectical critical realism.

#### *The Critical Realist and Dialectical Critical Realist Epistemology*<sup>14</sup>

The critical realist notion of stratification yields a conception of the nature of science and scientific progress (a conception first developed in *RTS*). On the critical realist conception, the process of scientific development consists in the theoretical move from an effect, at one stratum, to its cause at the stratum below. The sharp distinction between each stratum entails that new knowledge is not intrinsic to current knowledge; instead, new knowledge requires the effects of new strata to be perceived, at first indirectly. It is the task of scientific experiment to isolate these effects (creating a 'closure'). Once isolated, then 'old' knowledge does become important. It is not the intrinsic meaning of old knowledge which is of use. Rather, old knowledge provides the scientist with *analogies* and *metaphors* and the like. In the face of unexplained phenomena, scientists 'borrow' concepts and models from established fields and 'stretch', 'distanciate' or distort their meaning in order to produce 'hypotheses' of fundamentally new strata to be, in turn, empirically tested. This process is 'retroduction' in critical realist terminology.

Dialectical critical realism retains the critical realist conception of scientific method and progress (see, especially, *Dialectic*, ch. 1). The dialectical critical realist 'epistemological dialectic' is little more, in this case, than a gloss on the critical realist analysis. The dialectical critical realist notion of 'absence', highly flexible in its meaning, is introduced to stand in for both the absence from knowledge (explicit or implicit) and for the corresponding absence from actual events and the perception of those events, of deeper strata. It is thereby possible to view the process of science as driven by absence. Scientists are driven to overcome ('to absent') the anomalies, surprises and the like that arise at a particular level of stratification - these anomalies must themselves be conceived of as absences from knowledge, and from actuality, of deeper strata. The process of science thus provides one instance of the general dialectical critical realist comprehension of process in terms of 'absence' and of, in particular, human development as the 'absenting of absence'. The crucial point Bhaskar makes is that, given this view, 'absences' must have ontological status and not just epistemological status, ie. *absences must be real*; any other way, the reality of processes in general would have to be denied and they would have to be considered as no more than constructions of the mind.

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<sup>14</sup> In addition to Bhaskar's work, that of Tony Lawson (eg. 1997) and Andrew Sayer (eg. 1992) is especially useful in detailing the critical realist conception of epistemology and of methodology.

Scientific development provides also an example of the ‘non-linearity’ of the dialectical critical realist dialectic. The non-linearity of the ‘epistemological dialectic’ is reflected in the continual ‘distanciation’ and ‘stretching’ of old concepts and models indicating that the development of new knowledge is by no means a smooth and intrinsic development of old knowledge.

### *Summary*

Critical realism and dialectical critical realism are usefully summarised through Bhaskar’s critique of Hegel. Bhaskar, in *Dialectic*, finds a catalogue of philosophical errors in the Hegelian dialectic. Hegel is alleged to overemphasise unity; absolutise totality; linearise the dialectic; identify thought and being; and ultimately to deny the reality of absence. Hegel is further castigated by Bhaskar for his alleged ‘anthropomorphic’ view that totality of strata are known or fully knowable. Such ‘cognitive triumphalism’ must, according to critical realism, be scotched: the non-identity of subject and object ensures that there is no reason why all being must be *conceivable* being, let alone why all being must be conceived of already; the ‘open totality’ ensures that there is always the possibility, indeed likelihood, of newly emergent strata (most importantly, the possibility of new social structures brought about by human agency), so that reality is forever incomplete and inherently impossible to grasp fully.

There is not, it has been argued, any great gulf between critical realism and dialectical critical realism. On the contrary, dialectical critical realism clarifies, deepens, enriches, broadens and develops critical realism. The notion of ‘real absence’ is key to this argument. Below, critical realism and dialectical critical realism will be subjected to an immanent critique which is simple and yet, it will be argued, fundamental.

### *Immanent Contradiction of the Critical Realist Notions of Stratification and Emergence*

One simple possibility serves to lead the critical realist ‘open’ stratified ontology into contradiction. The ontology must embrace the possible existence of a structure (or force) which will cause, at some future date, the characteristic behaviour or *defining tendencies* of other structures to *change*. In other words the ontology opens up the possibility of a structure (or force) that will cause present scientific ‘laws’ to *cease to exist*. This possible structure can be termed, metaphorically, a ‘time bomb’. The ‘time bomb’ structure envisaged here does not destroy objects in accordance with the ‘known laws’ of nature as would a literal time bomb, rather it destroys the world as ‘known’ to science, by ending the ‘laws’ of nature ‘known’ by science. Though not yet discovered, the ‘time bomb’ could be located at a deeper stratum than hitherto uncovered by science; or it could be newly emergent; or it could be simply an isolated and, as yet, undetected entity. Bhaskar’s entire polemical argument for an ‘open’ totality and his stress on difference provides no coherent response to the sceptical consequences of the ‘time bomb’ possibility, as will be explained below.

An intuitive critical realist response would be to argue that a ‘time bomb’ structure is possible but unlikely. The existence of such a peculiar structure would seem a remote possibility given

that all fundamental laws have, apparently, not changed in the past,<sup>15</sup> and no structure likely to bring about such change has ever been discovered. Now, it should be stressed that the validity of this basic response *as such* is not what is at issue. Rather, the question is whether or not the critical realist (or dialectical critical realist) notion of a stratified ontology can validate the response. The answer is, quite simply, that it cannot. There is nothing within the critical realist notion of stratification that requires a finite set of strata to exist; nor is their anything that entails that all strata should be knowable (nor even potentially knowable) - the stress on openness and difference entails quite the contrary. Therefore there is no basis in the critical realist notion of stratification to even deem *unlikely* the existence of a 'time bomb' structure and no basis, if such a structure does exist, for science to ascertain when it might 'go off' until the structure is actually discovered. The fact that a 'time bomb' has not *yet* been detected, and has not 'gone off', has no bearing on the possible existence of such a structure, given that there could always exist as yet undetected structures. Science must, on this view, admit *ignorance*. But if science can have *no idea* regarding such important matters then it cannot claim anything but ignorance as to the future nature of reality. Science is helpless to affirm or deny the proposition that all the laws currently 'known' could cease to exist at any moment. In these circumstances the claim that science currently, if fallibly, grasps some of reality - real objects, structures, natural causes or natural necessity - must be considered bogus; current 'knowledge' merely 'staves off our ignorance' (Hume<sup>16</sup>); science does not access fundamental causes and scientific 'knowledge' has no rational justification. Present 'knowledge' that is entirely ignorant of the *nature* of the world (its underlying structures and mechanisms) in the immediate future is not knowledge at all.

In the face of this immanent contradiction a critical realist response might be to rule out any 'time bomb' structure on the grounds that the possibility of such a structure generates scepticism. It is well known that any attempted statement of scepticism is inconsistent since statements are based on reason and scepticism undermines reason (*RTS*). However, a move to rule out any 'time bomb' would lead the critical realist and dialectical realist ontology into a self-contradiction of a different nature. For, SEPM (from which the whole stratified ontology was derived above) entails that the relation between real causal structures and thought is non-isomorphic and causal, ie. structures are independent of, and causal upon, the subject. This mind-independence ensures that the nature of structures is entirely independent of the (epistemological) question of whether, and to what extent, they are knowable by humans. In other words, mind-independence entails that all being is not necessarily conceivable *contra* the alleged 'cognitive triumphalism' of Hegel (see above). Yet, to rule out a 'time bomb' structure is to assert that all being is, not only conceivable, but actually conceived of, if only in a negative sense, ie. it is an assertion that (somehow) scientists *know* that *no aspect* of being is a 'time bomb' structure. Furthermore, such a contradictory move would raise the question of just what it is that prevents the 'time bomb'. Given the critical realist ontology, then some mysterious and omniscient force would be needed to ensure that a 'time bomb' does not form anywhere in the universe; 'God' being the only candidate. The fact that science has, *in fact*, taken place, and continues to do so, does not constitute evidence against the existence of a

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<sup>15</sup> Thus, the fundamental laws of physics and chemistry are ordinarily presumed to be universal through time and space. Of course, the nature and extent of scientific *knowledge* of them has changed and will continue to do so.

<sup>16</sup> Hume (1975), pp. 30-31, quoted in Dow (forthcoming).

‘time bomb’. The apparent fact of scientific practice *up until now* implies, at most, that a ‘time bomb’ has not been discovered or gone off *up until now*. This provides no rational warrant for invoking the ‘God-like’ force preventing a ‘time bomb’ from existing and ‘going off’ in the *future* (this point echoes Hume once again).

In sum, critical realism cannot escape the contradiction at its very heart. The non-isomorphic and causal relation between thought and its object leads to the self-contradictory notion that a ‘time bomb’ structure could exist somewhere in the universe. The attempt to rule out the ‘time bomb’ structure, on the ground that it leads to scepticism, flatly contradicts the non-isomorphic and causal relation of thought and its object. There is no way out for critical realism. Spinoza’s view, by upholding an isomorphism of thought and object, overcomes the contradiction of critical realism and dialectical critical realism and, in so doing, provides coherent notions of emergence and stratification, as will be explained below.

### **(3) Spinoza’s Transcendence of Critical Realism and Dialectical Critical Realism**

This section draws upon Ilyenkov’s interpretation of Spinoza (Ilyenkov 1977, Essays 1 and 2) in order to transcend Bhaskar’s philosophy. It is argued that, in effect, Spinoza reconstructs SEPM fundamentally so as to overcome self-contradiction and provide a materialist identity of thought and being. Furthermore, Spinoza’s view is shown to develop so as to sustain notions of emergence and stratification on higher level than critical realism, such that the Humean critique is overcome. Finally, Marx’s and Hegel’s respective critical developments of Spinoza are discussed briefly and, from this discussion, new light is shed on the vexed question of the Marx-Hegel relation.

#### *Immanent Contradiction of SEPM*

Bhaskar provides a criterion of ‘mind’, drawn from analytical philosophy, that bolsters SEPM by indicating that thought does indeed generate a distinctive activity: ‘An entity *x* may be said to possess a *mind* at time *t* if and only if it is the case that it possesses at *t* the capacity either to acquire or to exercise the acquired ability to creatively manipulate symbols’ (*PON*, p. 81). However, consideration of the essential features of the distinct activity generated by thought - features recognised within critical realism but not explicitly considered as part of Bhaskar’s discussion of SEPM - reveals a contradiction. The distinctive feature of the thinking body is that it modifies its schema (mode) of action so as to accord with the activity of other objects. In other words, the thinking body must choose to act upon ideas that, as Sayer (1992) puts it, are ‘practically adequate’.<sup>17</sup> Though uncontroversial, this distinctive feature of human activity contradicts the notions of emergence and stratification that are tied to SEPM. For, the ‘distinctive’ activity associated with the stratum of thought is not, in an important sense, distinctive at all; instead, thought essentially generates a schema of activity which *accords with*, or ‘mirrors’, the schema of other objects so of other strata; a mode of activity which is not fixed to any particular schema of its own but continually and fluidly transforming so as to

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<sup>17</sup> ‘Practical adequacy’ is not, however, the general critical realist *criterion* for truth as Sayer would have it - see *Dialectic*.

accord with the many diverse activities of other objects. The critical realist view that, for every stratum, there is a unique structure and correspondingly unique activity, is contradicted; thought generates activity in accordance with, rather than distinct from, all other strata.

This contradiction is no mere peculiarity, rather it has ramifications that lead the very notion of SEPM into contradiction. For, the activity of the thinking body is not fixed to a limited range of objects. Rather, the thinking body continually strives to embrace *any* object that it may come into contact with. The activity of the thinking body thus has a *universal* character in contradistinction to the particular activities of non-thinking bodies. This means that the search for some inner structural essence of thought must be fruitless because the associated activity is, precisely, *not fixed* and so can have no fixed structural 'determination' (limitation). Any structural essence of thought, as postulated by SEPM, would have to be 'God-like'; a 'miracle' structure, containing equivalent structural complexity to all other strata - a structure equivalent, in the limit, to the universe, packed somewhere within one brain (and central nervous system); a structure that would, in other words, contradict the very principle of structural determination.

It was the impossibility of any inner structural essence that led Descartes (on Ilyenkov's interpretation) to argue that thought instead belongs to a separate substance, viz. 'mind'. In this way, Ilyenkov makes Descartes a far more formidable opponent of Bhaskar (and other contemporary thinkers) than is often recognised. Still, and as is well known, Descartes could not explain how two things with nothing essential in common, mind and matter, interact and accord with one another. So in the final analysis Descartes could not provide an account of mind and body any more rational than SEPM. He ultimately took refuge in 'God' to connect what cannot conceivably be connected. On Ilyenkov's interpretation it was Spinoza who first overcame rationally the contradiction of SEPM and of Cartesian dualism.

### *Transcendence of SEPM*

The simple point Spinoza makes is that what has emerged in the case of thought and human activity is not a power underlain by a *fixed* structure. Rather, the complex structural constitution of the thinking body is characterised by the ability of *self-transformation*. The activity of the thinking body is not forever fixed by its structural constitution because its structure is just so designed as to be capable of self-transformation over time. The (as yet little understood) inner bodily structural constitution associated with thought is forever *changing itself* in order to produce activity in accordance with more and more external objects. This immediately raises the question of *how* this self-transformation can be directed so as to produce such activity. Spinoza's answer to this question is presented below. Firstly, it is instructive to consider the critical realist notion of the 'real essence' of thought in the light of the argument thus far.

The self-transformation of the inner bodily structure associated with thought entails that the mode of activity generated by thought is not delimited by this inner structure. Rather, the mode of activity generated by thought is delimited only by the *objects of thought*. In order to disclose, and explain, the characteristic behaviour 'generated by' thought it is to the relationship between human activity and that of the real objects of the universe that the

scientist (or philosopher) must turn. In contrast to the case of non-thinking bodies, the characteristic mode of activity of the thinking body, the true potential and power of thought, cannot be comprehended in isolation from the rest of the universe. The 'powers' of thought cannot be delineated fully at one relatively isolated 'stratum', as can the powers of non-thinking bodies such as water. Rather, the full powers of thought are far from our current comprehension (given that the real objects so far encountered by humanity are few in number relative to the infinite universe). Nor, therefore, can the move be made to some determinate underlying structure from which thoughts emerge. There is no 'real essence' of thought analogous to H<sub>2</sub>O, as the real essence of water. Critical realism is correct to view thought as *enabled* by some underlying structure of the brain and CNS. But critical realism is incorrect to view thought as in any way *constrained* by that underlying structure. For, the underlying structure is itself subordinate to the imperative of self-transformation over time so as to accommodate real objects. In no sense is the underlying inner structure the 'real essence' of thought.

How, then, is the inner structural transformation directed so as to enable activity in accordance with external objects? Spinoza's answer is again simple. The thinking body must have the emergent faculty of *self-awareness*. The significance of self-awareness is not as some sort of *inner* tap to knowledge (as in the common interpretation of rationalist philosophy) rather the thinking body is aware of its own (outer) spatial bodily activity. Such self-awareness entails a profound shift in the understanding of the relationship between ideas and human activity, as compared to SEPM, to be explained below.

The thinking body is an active material body, amongst other active material bodies, and so, through its spatial activity, the thinking body comes into direct contact with other objects. The faculty of self-awareness of spatial activity is the key that enables the thinking body to turn such direct contact into direct acquaintance with the object. It is well known that the senses, on their own, do not provide such direct acquaintance (this is the 'theory-ladenness' of observation). By acting spatially and transforming its schema of action when external objects intervene it *is* possible for the thinking body to achieve and recognise an identity between its own spatial activity and that of external objects. To give an elementary example: by describing a circle in space with its hand the human body achieves a direct identity between itself and all external objects in the shape or trajectory of a circle. According to Spinoza, *an adequate idea of an object is then nothing but the self-awareness of the spatial activity of the body identical in shape (isomorphic) to the object.*

In effect, Spinoza provides a fundamental reworking or reconstruction of SEPM demanding a profound reorientation on the part of any adherent of SEPM. On Spinoza's reworking, the spatial mode of activity of the thinking body is not *caused* by the ideas of that body. It is true that, without ideas, intentional human activity would not be possible but this does not justify Bhaskar's view that ideas are a distinct stratum causal upon human activity; on this road the contradiction raised above is inevitable. Rather, the ideal consists in *awareness of* the spatial mode of activity of the body. It follows that the spatial and ideal are two different *expressions* of the mode of activity of the thinking body. In other words the mode of activity of the thinking body has a double expression; an 'inner' expression in ideas and an 'outer' expression in the mode of *spatial* activity of the body. This being characterised as a mode of activity in

accordance with, potentially, *any* object. It is important to note that Spinoza has introduced no element that is wholly new or absent from SEPM; both Spinoza and Bhaskar employ concepts such as ‘emergence’, ‘ideas’, ‘self-awareness’, ‘practical adequacy’, ‘language’, ‘sensation’, etc. All Spinoza has done is reworked or *reconstructed* these elements so as to fathom their interconnection and to overcome the contradiction into which Bhaskar falls.

To clarify the argument it may help to couch it in the terminology of dialectics and so relate it specifically to dialectical critical realism. In the language of dialectical critical realism, SEPM is the foundation for the general ‘non-identity’ - most fundamentally of thought and being - which is the starting point of dialectical critical realism (see *Dialectic*, p. 3 and, also, section 2, above). In dialectical terms, the critique of SEPM presented above shows that Bhaskar does not push the non-identity of thought and object to the absolute opposition between *universal* (mode of activity of the thinking body) and *particular* (activities of external bodies). He therefore fails to recognise the contradiction of a particular structure (that underlying thought) generating potentially universal activity (activity in accordance with all external objects) - the contradiction noted, but not overcome, by Descartes. Spinoza achieves the transcendence of this contradiction by rationally reconstructing the aspects of SEPM to demonstrate the identity of thought and the objects of thought. Thus Spinoza demonstrates an identity of opposites no more difficult to grasp than the identity that holds between a circle described by hand and all external objects in the shape or trajectory of a circle. Far from being idealist, the identity of thought and being arises through the materialist transcendence of the contradiction harboured within SEPM.

### *Spinoza’s Notions of Emergence and Stratification*

As outlined above, ‘thought’ is, for Spinoza, a fully material mode of activity that accords with, in the limit, *all* objects in the universe. Though human thought is, of course, a very long way from reaching this limit and according adequately to the whole universe (it is ‘imperfect’ in Spinoza’s terminology) it consists, nevertheless, in a continual striving towards this limit and embraces fluidly *any* object which it may come across. Thought has, then, a universal character or potential; a ‘universalising’ drive. This distinguishing feature of thought presupposes that the diverse objects of nature, according to which the thinking body acts, must have a universal and essential aspect. If it is true that the thinking body acts in accordance with any object, and also according to a unified schema, then all objects must have an underlying unity; a unity that is manifested, or exists, in their very diversity and plurality. For, it is only if objects have an essential unity that thought *as such* (thought as a single ‘universalising’ mode of activity as opposed to merely a set of different activities or a single, isolated mode of activity like any other) is possible at all. Notice that, without a universal aspect to objects, thought could not display the flexibility and fluidity that it does in fact display. The explanation of the structural constitution of thought as self-transforming would fail and Cartesian dualism would indeed be impossible to overcome. For, this explanation requires that the thinking body *moulds* or *transforms* its current mode of activity in order to accommodate new objects; the thinking body does not ‘start from scratch’ every time a new object is encountered, rather it adapts the modes of activity that it has already learnt. The universal principles of thought can, then, be nothing but the reflections of the

universal essence (called 'substance' by Spinoza) of the diverse objects of Nature (the 'universe').

Clearly, the argument above is preliminary and in need of elaboration. In particular, the argument begs the question: as what are the manifestly diverse objects of the universe somehow united? The self-transformation of thought can only be understood to reflect Nature if unity exists in Nature; but does such unity exist and in what does it consist? Spinoza's answer to this question arises as a corollary of his overcoming of the Humean critique of 'natural necessity' (a critique which, it was argued above, Bhaskar fails to overcome). It is to natural necessity, and a little known or understood basis for, and conception of, the notions of stratification and emergence that the argument below turns.

### *Natural Necessity*

Critical realism makes the correct and profound observation that the objects of science are (stratified) structures and their corresponding modes of activity. Accordingly, critical realism goes on, apparently quite plausibly, to identify necessity (natural necessity) with each individual structure (and corresponding mode of activity), or more generally, with each stratum. Necessity, on this view, is comprehended once the underlying structure and mechanism is uncovered and defined. Yet, as shown in section 2, above, this conception is ultimately derailed in Humean fashion. For, to argue that necessity resides in a specific structure is to beg the question of how the structure itself arises; to fail, in fact, to show that the structure necessarily exists at all and to leave out of view any necessary development further to its necessary process of formation. It is to leave the scientist as merely *describing* structures and modes of activity rather than *explaining* them; their necessary origins, development and possible demise. The critique in section 2, above, demonstrated, through the invocation of the 'time bomb' possibility, that the result of this lack of necessity turns out to be no knowledge of the immediate future and so no 'natural necessity' of the sort accessible to human knowledge at all.

But wherein can necessary existence be conferred on an object or strata? Can Hume be overcome? Given the basic principle that critical realism recognises, but fails to uphold, the principle of 'structural mode of activity' (in essence the principle of 'matter-in-motion'), then consideration of structural interaction over greater and greater stretches of space and time reveals a greater and greater likelihood of definite strata existing. Definite strata must exist, with absolute necessity, not everywhere, nor for all periods of time, but somewhere, at sometime. Take, for example, the key issue of the existence of thought. Any given thinking body has, quite clearly, arisen from masses of chains of cause and effect which could equally have produced, say, a tree or a stone. Thus each thinking human being, indeed, the human species as a whole, has no *necessity* to arise; its origin was, in fact, determined step by step but this is just a chance occurrence that may just as well not have happened and need never happen again. However, though it is true that any particular person, or indeed human thought in general, does not of necessity arise, it is reasonable to assume that thought as such, rather than the specific form of human thought, *is* necessarily produced by the *infinite* Real totality. It is not necessary, given the complexity of thought, that thinking bodies take the precise form (structural constitution) of humanity, but it is necessary that, through some or other structural

constitution, a thinking body - a body capable of reflection to the same or to a greater degree than humans - will occur. Thus necessity, absolute necessity, resides in the fact that space and time are *infinite*. Formally, and conceptually, the probability of strata existing somewhere, at sometime, in the infinite universe has a magnitude of, precisely, one (signifying absolute inevitability). This is because the magnitude of probability is defined as a (mathematical) *limit* as a number of 'trials' or 'experiments' approaches infinity.<sup>18</sup> For this reason, 'Real infinite Nature' is the notion upon which Spinoza's concept of necessity hinges. Spinoza calls this all embracing totality, 'substance' or 'God' and the finite things within it, 'forms of matter'.

### *The Relation Between Strata*

Spinoza's recognition of 'substance' entails a different concept of the relation between strata to that of critical realism. In contrast to the critical realist view, strata are unambiguously (and symmetrically) internally related; they are necessary developments or transformations of one another. A higher stratum is a necessary development of a lower stratum. A lower stratum necessarily develops into a higher stratum. Though it is quite clearly not necessary that a lower stratum, such as defined by chemical elements, should always and everywhere develop the structures underlying the powers at the higher stratum, such as the powers of water, it is absolutely necessary that somewhere, sometime, in the infinity of the universe, a lower stratum will develop all the powers of the higher stratum. So, taking three broad ranges of strata, it can be said that the structures and modes of behaviour of inanimate bodies will necessarily, somewhere, sometime, develop into the structure and modes of behaviour of living bodies; furthermore, these emergent bodies - their structures and modes of behaviour - will necessarily develop into thought; not everywhere but somewhere at some time.

With Spinoza, as with critical realism, there is a clear distinction of real structures, together with their characteristic modes of behaviour (mechanisms), from any actual and conjuncturally determined object or event. In turn, there is a clear distinction of actual events from their observation by humans (underpinned by the reworking of SEPM elaborated above). The chasm between critical realism and Spinoza's conception lies in their distinct respective views of natural necessity and the corresponding understanding of stratification. Critical realism and dialectical critical realism stress 'multiple essences', 'anti-foundationalism', 'open', 'incomplete', 'partial' and 'subordinate' totalities, and stress difference over unity (see above). All this is counterposed by Bhaskar to Hegel's alleged closure and over emphasis on unity. Yet Bhaskar's position collapses to Humean scepticism (if the critique above is accepted). Moreover, this collapse occurs, it can now be seen, just *because* of the failure to recognise one single, infinite Reality, ie. the failure to recognise what Spinoza calls substance. With every word of his critique of the notion of all encompassing totality, Bhaskar simply hammers another nail into the coffin of (his notion of) natural necessity and so of rationality.

Spinoza's notion of stratification overcomes both Humean scepticism and Bhaskar's (in any case self-contradictory) critique of the notion of an all encompassing unity. Just as Bhaskar

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<sup>18</sup> In this particular example, the notion of probability as a 'propensity' coincides with the view of the magnitude of probability as the limiting relative frequency over 'trials'. Note that these 'trials' are not observable, as would be the case for the usual definition of the 'limiting relative frequency' view of probability.

recognises that objects and events are a contingent conjuncture of strata, so does Spinoza. Only, Spinoza is actually able to sustain his philosophy without collapsing to Humean scepticism because, unlike Bhaskar, he recognises that strata are necessary developments of one another and, as such, eternal potentia (attributes) of a single unified totality (substance). Any object is a contingent conjuncture of necessarily related strata and, as such, must be comprehended as a 'specific form of matter'. As 'matter' objects are identical, united; as *specific forms* of matter they are different. Unity and difference are inseparably bound up in any object such that unity and difference require *equal* emphasis in contradistinction to dialectical critical realism: any object is, then, precisely a 'unity of unity and difference'.

What does the above imply for the dialectical critical realist notion of 'absence'? It has been shown above that, unlike dialectical critical realism, Spinoza understands objects, and their concepts, as having an implicit aspect of unity, as being internally related to the Real infinite totality. Thus the infinite totality is *not* completely absent from a given stratum. Neither the critical realist view that a stratum can be grasped in isolation from the stratum below nor the view that the existence of one stratum must everywhere imply the existence of the emergent stratum (as the existence of a landlord must everywhere imply the existence of a tenant), is entailed in Spinoza's conception. Spinoza recognises that a lower stratum can exist without developing into a higher stratum, as does Bhaskar, but, unlike Bhaskar, Spinoza also recognises that the lower stratum must develop into the higher stratum somewhere, at sometime. In this sense, the higher stratum is implicit in the lower stratum, both conceptually and in reality. Thus strata are always *inherent potentia* of the present; they are implicit in the present and not absent from it. The dialectical critical realist notion of real absence would destroy the crucial features of Spinoza's view, the implicit and eternal *presence* of all attributes of substance (strata).

### *Epistemology*

Spinoza's epistemology can usefully be presented in terms of the 'litmus test' for philosophy proposed by critical realism. From *RTS* onwards, Bhaskar, and many other critical realists have staked the worth of their view on its ability to sustain an intelligible conception of science (Lawson 1997, pp. 58-61, provides a particularly clear statement to this effect). The challenge for alternative views has always been to better the critical realist conception of the ontology presupposed by scientific practice (an ontology that Bhaskar claims in *Dialectic* to be presupposed by any human act whatsoever). And, while modestly holding out the possibility, indeed likelihood, that critical realism may one day be superseded, critical realists remain convinced that at least 'something like' the basic critical realist stratified ontology must be true, given the nature of scientific practice. If the foregoing shows the critical realist ontology to be untenable so failing the 'litmus test', and that Spinoza's philosophy may, at first sight, appear to be 'something like' critical realism but is in fact on an altogether higher level, then it still remains to be demonstrated that Spinoza can pass the 'litmus test' and uphold scientific practice. This demonstration is carried out below.

As detailed in section 2, above, critical realism conceives of scientific progress in terms of the process of 'retroduction'. Scientists 'borrow' models from established fields elsewhere and 'stretch', 'distanciate' or distort their meaning in order to produce 'hypotheses' of

fundamentally new strata to be empirically tested. Spinoza's conception does not deny that a process such as retrodution is highly evident in science and that analogy, metaphor, etc., is a ubiquitous scientific phenomenon. The success of critical realism lies in part, no doubt, on its detailed description of these surface features of science. However, the notion of dialectical logic opened up by Spinoza's view is most emphatically not merely a 'logic of analogy and metaphor'; it is a mistake to view scientists as being led by such a logic - however they themselves understand their activities (as Bhaskar often points out, the best of scientists often misconstrue the methodology implicit in their own work). Dialectical logic penetrates beneath these surface features of science in order to provide a relatively little known yet challenging comprehension of epistemology and so of scientific practice.

The isomorphism of thought and object upheld by Spinoza means that knowledge is not reliant on (tested against) the effects of objects *where those effects are non-isomorphic to their cause*. On the contrary, even before scientific practice begins, the scientist has learnt to act in accordance with a great many objects (actions 'mirroring', or 'isomorphic to', objects); her ideas are thereby inner expressions of an isomorphism of human spatial bodily activity with the activity of a great many objects. And through the practical activity of science, practical intervention to trigger mechanisms (to create closure), the scientist learns to further develop her mode of activity to accord with the specialised objects of science (strata). Furthermore, the ontology outlined above demonstrates that these strata are unambiguously internally related to each other, and to strata yet to be discovered by science. Specifically, known or unknown strata are necessary developments of one another. A higher stratum is a necessary development of a lower stratum. A lower stratum necessarily develops into a higher stratum. Thus the *fundamental* task for the scientist is *not* to take old knowledge, externally related to unknown strata, and stretch, distort or 'distanciate' its meaning to reach a model or hypothesis of an entirely new (absent) entity. Rather, the task is to *interconnect* the real strata; to fathom their relation in a hierarchy of *necessary development*. Only through such a hierarchy can either the unity of, or the difference between, real objects be grasped.

Of course, only a small portion of the universe is open to scrutiny by humans so that that the process of fathoming interconnection in terms of necessary development must entail an attempt at comprehension that (however imperfectly) goes way beyond the actually encountered strata; an attempt to achieve knowledge of all strata. From this follows the Spinozist understanding of the nature of human error; the manifest and high degree of 'imperfection' of finite, human thought as Spinoza puts it. Error does not lie fundamentally in a failed analogy, with respect to effects non-isomorphic to their cause. That is to say, error does not lie in a lack of objectivity. This is because concepts are isomorphic to their object and therefore quite objective. Instead, error lies in a lack of *interconnection*, a lack of recognition of the true necessary development of strata, rooted in a failure to grasp the truly universal aspects of given objects (and their concepts) and a corresponding *over-extension* of partial truths. Error is, then, an elevation of a merely contingent phenomenon into a universal attribute of substance (a universal truth). On this view, all concepts are true (isomorphic) to their object - the crucial question concerns just what aspect of the object is comprehended (acted upon): is it a truly universal aspect or merely a contingent occurrence?

Of vital importance, and in contrast to critical realism (and other well known philosophies) is Spinoza's recognition that the objects of science do have an aspect of universality, and that this aspect consists in their being an instantiation of strata (form of matter), where the various strata constitute a single hierarchy of necessary development. Thus the task to fathom this universal aspect of objects, hence their differences also, is a difficult but not impossible task. It follows that the fundamental advances in science entail a reworking, or reconstruction, of the necessary development of given concepts according to a principle that had previously remained implicit but had not been explicitly comprehended. To illustrate this view, consider the 'time bomb' scenario, shown above to be so damaging to critical realism. For Spinoza, such a scenario is easy to dismiss because, quite simply, the invocation of a 'time bomb' - an entity or force that will at some future date abolish the laws of Nature - is an invocation of something that is *not an intrinsic development of current knowledge or currently encountered strata*. Unlike the critical realist view, the scientist is not at liberty to concoct just whatever notion of new strata that she pleases; still less to concoct a self-contradictory notion of a 'time bomb'; rather, the task is to fathom the inner connection of phenomena more and more deeply and adequately. As more and more objects are embraced by thought (so spatial body activity), then a more and more deep and adequate grasp of the inner development of things is achieved. Apparent 'jumps' of thought are no more than reworkings of 'old' knowledge to reveal new strata, new laws, etc., previously implicit. The development of knowledge is, in this sense, 'linear' in contradistinction to the critical realist view.

It is worth referring back to what created the whole difficulty for critical realism regarding the notion of a 'time bomb' and the resulting collapse to scepticism: the conception of the relationship between thought and being. It was shown above that critical realism is absolutely precluded from ruling out a 'time bomb' structure due to the non-isomorphism of thought and object (non-identity of thought and being) generated by SEPM. Yet, no self-contradiction is entailed in ruling out a 'time bomb' given the isomorphism of thought and object upheld by Spinoza's reworking of SEPM. Rather, the notion of such a 'time bomb' can be ruled out consistently by Spinoza, for it is inconsistent with, indeed quite alien to, his philosophy. From this flows the more general point that, at the heart of any philosophy, must lie some conception of the relation of thought and being, and an argument that only a materialist identity theory of this relation is, ultimately, rational.

*(Tentative) Illustration*

The move which can loosely be referred to as a development from a 'Newtonian' to an 'Einsteinian' conception of the universe appears to provide an illustration of the above themes.<sup>19</sup> Most obviously, the view of error is illustrated, firstly, on a quantitative basis, by the approximation to a 'Newtonian' world by Einstein's equations at a limited range of magnitudes of relevant variables. The Newtonian world view thus incorrectly takes a limited, partial truth (an equation that is approximately true within a given range of magnitudes) as holding universally (as holding outside the given range of magnitudes). On a qualitative basis, it is also clear that Newton's notions of absolute space and time, and so the law that matter is at

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<sup>19</sup> Ilyenkov does not use this illustration and I am not a natural scientist, let alone an expert on Einstein, hence the illustration is 'tentative' and should best be viewed as an attempt to make clear the interpretation of Spinoza's philosophy, rather than a true account of either Newton or Einstein.

rest unless acted upon by an external force, has no place in Spinoza's conception. Again, Newton reflects how the world partially appears, rather than its truly infinite nature (of course, Spinoza and Einstein were very far from being the first to argue this case against absolute time and space). Even more significantly, Einstein is led to supersede Newton's notion of the 'force' of 'gravity'. The notion of this force as existing externally to matter and being causal upon it (a notion that has more than once been used to criticise Spinoza's view<sup>20</sup>) is superseded by the view that gravity is no more than the curvature of space-time. For Spinoza, the notion of 'force' must refer to a mode of activity of matter and cannot be considered as existing externally to matter. To label a recognised mode of activity as 'caused by' an external 'force' is not to explain that activity at all. Rather, as argued above, explanation lies in *interconnecting* the structures and modes of activity of Nature; revealing their inner development and unity. From this perspective, the developments within the physical sciences towards a *unification* of the recognised physical 'forces' into one single force is in no way surprising.

### *Developing Spinoza*

The presentation of Spinoza's position above, as that position is interpreted by Ilyenkov, is remarkable in that Spinoza's work appears as the fundamental basis for materialist dialectics; a view of Spinoza that is little recognised. At least three questions are raised by this presentation. Firstly, there is the question of just how it is possible that Spinoza could be invoking notions of 'strata', 'SEPM', etc. at all, given that he wrote centuries ago: is not the account guilty of anachronism? Secondly, Spinoza's view has been presented in a purely positive light yet Hegel and Marx are much more than mere Spinozists, hence the question of where they find fault with Spinoza. Thirdly, if Spinoza does indeed provide the basis for materialist dialectics then his view should speak to the vexed question of the nature of the Marx-Hegel connection. The first question has a straightforward answer. Ilyenkov's exposition of Spinoza translates the salient features of Spinoza's philosophy into contemporary terminology. The exposition above is an attempt to develop Ilyenkov's account so as to present it in critical realist terminology. In this process of translation it is possible that Spinoza's view has been developed beyond Spinoza's own position but this is a minor price to pay if the content and critique above are of any merit at all. As for the second and third questions, then it should be made clear that Spinoza's view can provide only the most abstract fundamentals of method, it being left to Hegel, Marx and Engels to elaborate dialectics. Furthermore, both the Hegelian and Marxian dialectic does contain, on Ilyenkov's interpretation, a profound development of Spinoza's position that reveals its great limitations at anything but the most abstract of levels. Hegel's critique of Spinoza is summarised by Smith (1993) and need not be presented below. Instead, Marx's (related) critique is presented. Given this context, an argument is put forward that Spinoza's quite correct conception of substance at an abstract level, despite its failings at more concrete levels, sheds new light (relative to the still ongoing debate) as to the sense in which Marx legitimately accuses Hegel of idealism.

### *Marx's Development from Substance to Labour*

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<sup>20</sup> Bhaskar himself makes just such a criticism of Spinoza. See *PON*, pp. 103-104 and p. 118, note 54.

Marx, on Ilyenkov's interpretation, goes beyond Spinoza by noting that the mode of human activity is not merely one of accordance with the object; humans transform not only themselves but also the object in the course of their labour i.e. in the process of social production. According to Marx's view, the social individual varies according to a historical process, Labour, where that individual is equally as important as the totality (which Spinoza had termed 'substance') of which she is part. On Marx's conception, it is through Labour that nature (substance) transforms itself, given that humans are as much part of nature as are the objects of their labour. The exposition of Spinoza remains very important because it reveals clearly the true significance of Marx's well known remarks on Labour and nature. Most importantly, it reveals that the notion of Labour incorporates an isomorphism of thought and the object of thought. Note that critical realism is also able to uphold a notion of Labour, or 'social production', through the so called 'transformational model of social activity'. Yet the critical realist notion is fundamentally different to that of Ilyenkov since it is based on SEPM (so on a non-isomorphism of thought and the object of thought).

### *The Marx-Hegel Connection*

The precise relation of Marx and Hegel has been a perennial source of debate within Marxism. The debate shows no signs of letting up. To take an important recent example, John Rosenthal's book (1998) provides a vehemently anti-Hegelian reading of Marx, including an attack on the current trend towards a 'new dialectical' reading of Marx and Hegel. Various 'new dialecticians' have responded strongly to Rosenthal (Williams 1999, Smith 2000, Arthur 1999). Within this debate the range of interpretations of Hegel are spread from outright and mistaken idealism (Rosenthal) to basic and correct materialism (Smith 2000; see also Fraser 1998). It can be noted also that *none* of the prevailing interpretations actually sustain Marx's own well known statements to the effect that Hegel must be '*turned right side up*' so as to reveal the 'rational kernel' in the 'mystical shell' of the Hegelian dialectic (Bhaskar too, in *Dialectic*, eschews the metaphor of inversion). What, then, does the above interpretation of Spinoza contribute to the debate? Firstly, the interpretation defends Hegel, as well as Marx, *against* the charge of idealism on a great many counts. For it shows, as argued above, that there is nothing idealist or 'anthropomorphic' about a linear dialectic and related themes (*contra* Rosenthal and Bhaskar); indeed Ilyenkov's interpretation is congruent with the cogent defence of Hegel against such criticisms made by Tony Smith (2000) and others (see Ilyenkov's very similar, though little known, interpretation and defence of Hegel made in Ilyenkov 1977, Essay 5). Secondly, the interpretation reveals a sense in which Hegel *is* an idealist and must be 'turned right side up' just as Marx recommends.

The basic point made against Hegel by Ilyenkov, a point which holds against even the most robust of defenders of Hegel such as Tony Smith (2000) and Ian Fraser (1998),<sup>21</sup> is that Hegel does not make fully explicit the *materialist* identity theory worked out by Spinoza. To be specific, Hegel is ultimately *silent* on the precise specification of the mind-body relation

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<sup>21</sup> The question of whether Ilyenkov's critique of Hegel is a valid critique of Hegel himself, and not just of his 'new dialectical' interpreters, is far beyond the scope of this paper. This paper does not affirm, or deny, any interpretation of Hegel; it does not address the question of whether Ilyenkov, Bhaskar, or the 'new dialecticians' have the 'correct' interpretation.

and so on the emergence of thought from matter. In consequence, and despite the great gains of the Hegelian dialectic, Hegel is, in the last instance, idealist, because he cannot specify the *origin* of thought in matter and so ideas ultimately dominate matter in his philosophy (note that this is intrinsic to Hegel's philosophy and not simply a mistaken application of that philosophy as in Tony Smith's interpretation). Rather than ideas expressing spatial bodily activity, the reverse relation is, ultimately, sustained by Hegel whereby spatial bodily activity expresses the ideal. Hence, the ideal is the prime moment of human activity. The isomorphism of human activity with objects for that reason cannot be interpreted as a *materialist* identity of subject and object by Hegel. Thus, for Marx, it is necessary to retain the Hegelian dialectic but turn it right side up by basing it on a materialist rather than idealist identity of subject and object. This means stripping the Hegelian dialectic of all the idealist tendencies it inherits from the idealist identity theory upon which it is based. Such a task remains to be completed.

#### **(4) Conclusion**

The key argument of this paper, drawn, for the most part, from Ilyenkov's interpretation of Spinoza, can be summarised succinctly. Building his philosophy upon the sharp distinction between thought and its object, Bhaskar claims to offer a 'third way': he condemns any 'fundamentalist' notion of a single essence, or totality, underlying all phenomena, for its alleged blotting out of difference, and he condemns the anti-essentialism of empiricism for its failure to comprehend the real world of 'multiple essences'. Yet (i) the non-identity of thought and object leads his 'third way' to collapse into the empiricism of Berkeley and Hume; (ii) Spinoza sustains the materialist identity, as well as opposition, of thought and being. Spinoza's notion of an all-encompassing substance is able, thereby, to overcome empiricism whilst emphasising unity and difference in equal measure. There is, in other words, no 'third way' but, instead, as Ilyenkov puts it, "two polar and mutually exclusive solutions of one and the same problem - the problem of the relation of 'the world in consciousness' ... to the 'world outside consciousness' ... For here a choice must be made: either nature, including man as part of it, must be understood through the logic of the 'concept of substance', or it must be interpreted as a complex of one's sensations." (Ilyenkov 1977, p. 66)

The lessons of Ilyenkov's argument (if it were to be accepted) are two-fold. Firstly, the argument suggests that scepticism is a harder nut to crack than either critical realism and its development into dialectical critical realism, or contemporary Hegelian Marxist thought recognises. To point out the self-contradictory nature of scepticism, as does Bhaskar, is, of course, easy. Hume never once claimed to overcome the self-contradictory nature of his philosophy. *Just because of this*, Hume relegated 'reason' to a secondary role in human affairs and held that custom, habit and the passions hold ultimate sway over human thought and action (Dow 1998 and forthcoming). From Ilyenkov's perspective, it does not appear that Hume would have had great difficulty in refuting either Bhaskar or contemporary Hegelian Marxists. Critical realism cannot overcome the non-isomorphism of thought and object at its very heart. Hegelian Marxism cannot *justify* an identity of thought and being. In neither case is a rational warrant provided for rationality itself, ie. self-contradiction is not, finally, overcome. The paramount importance of Spinoza's notion of substance (as interpreted by Ilyenkov), and related notions lies, it has been argued, in the upholding of a materialist identity theory and, hence, of rationality itself.

Secondly, the argument suggests that it is impossible to understate the philosophical damage wrought by (i) the so called ‘dialectical materialism’ of Stalinist orthodoxy; (ii) those who can see only Stalinist orthodox philosophy, or some equal crudity, as soon as the term ‘dialectical materialism’ is invoked (and the term is very little invoked in contemporary Western academia). Criticisms along the lines of ‘the idealism of matter’; the conflation of intension and extension; technological determinism; reification of universals or of some mystical ‘absolute’; the dismissal of any form of teleology; and many other such criticisms do not remotely grasp the arguments above (most significantly they do not address the materialist identity theory put forward). If Ilyenkov’s position has any merit at all, then it is thus vital that the position receive genuine criticism. The heart of any such criticism would lie in the critique of the materialist identity theory put forward. Accordingly, the ultimate aim of this paper is to illicit critique of Ilyenkov, where such critique is based upon an understanding of a philosophy that is admittedly difficult, but also rewarding and, it has been argued, robust.

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