

**Developing Realistic Methodology: How New Dialectics Surpasses
the Critical Realist Method for Social Science**

ABSTRACT

This paper argues that 'new dialectics' provides an adequate methodology for economics and social science. The argument is advanced via a critique of 'critical realism', an important rival to new dialectics. Critical realism holds that the root mistake underlying orthodox methodology, termed the 'epistemic fallacy', is a failure to sustain adequately the distinction between ontology and epistemology, resulting in the relative neglect of ontology. By overcoming the fallacy, critical realism claims to provide an adequate methodology for economics and social science. The paper argues that critical realism goes too far in the opposite direction to the epistemic fallacy. Critical realism neglects the intrinsic links between ontology and epistemology so fails to provide an adequate methodology. However, critical realism must not, according to the argument, simply be rejected *in toto* if an adequate methodology is to be achieved. Instead it must be surpassed or transcended. The recent resurgence of a 'new dialectics' is argued to provide just such a supersession because new dialectics affirms the intrinsic links between ontology and epistemology without reducing the former to the latter. The implications of this transcendence are illustrated via a comparison of the respective interpretations of Marx's *Capital* offered by critical realism and new dialectics.

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Comments welcome.

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(1) Introduction

‘Critical realism’ and ‘new dialectics’ are distinct positions within philosophy, methodology and social theory. They are best introduced in response to a familiar sceptical refrain: what practical use is methodology and philosophy to the economist or social scientist?

The critical realist response is a subtle one. It argues that current practices in economics and social science *do* display an attempted adherence to what amounts to a set of interlinked philosophical mistakes. According to this view the root mistake, termed the ‘epistemic fallacy’, is a failure to sustain adequately the distinction between ontology and epistemology, resulting in the relative neglect of ontology¹. Due to this and other factors social science is claimed to be in crisis. So critical realists argue that philosophy must be taken seriously. Furthermore they maintain that, until recently, no systematic Western philosophy escaped the essential flaw that stifles social science. The only philosophy to do this is critical realism according to its proponents, first systematised by Roy Bhaskar in his *A Realist Theory of Science* (1975)² and *The Possibility of Naturalism* (1979)³ later to be developed in his subsequent publications and those of fellow critical realists. The central thesis is that the ‘epistemic fallacy’ can be overcome by recognising that a necessary condition of current scientific enquiry (indeed of any human act - cf. *Dialectic*, p. 230) is that there *are* real objects, including real social structures, that the scientist attempts through hard work to grasp. By upholding such an ontology the progressive insights of scientific realists (such as Harre, Hesse and Hanson) and the classic philosophers of science (such as Kuhn, Popper and Lakatos) are argued to be upheld and systematised. On this basis critical realists maintain that present day arguments that the concept of science is a modernist illusion to be replaced by post-modern anarchy can be refuted⁴. And in refuting post-modernism the modernist hope that adequate scientific knowledge might contribute to human emancipation is retained.

This paper attempts to sustain the critical realist aspirations. However, it presents an argument (through an ‘immanent critique’) that critical realism itself cannot sustain them. This is no warrant to give in to post-modernism because critical realism must not simply be rejected *in toto*. Instead it must be surpassed or transcended. The positive elements of critical realism, the assertions that knowledge and human emancipation are possible and the critical attitude towards orthodox philosophy must be retained but on a fundamentally new basis. It is the central argument of this paper that the recent resurgence of a ‘new dialectics’ provides just such a new basis; new dialectics represents the complete supersession or transcendence of critical realism. This transcendence may be considered a (very) fundamental ‘development’ of critical

¹ The ‘epistemic fallacy’ is defined in Bhaskar (1993) [Henceforth *Dialectic*], p. 397. Bhaskar has more recently argued that ‘ontological monovalence’ is an equally important common philosophical mistake (*Dialectic*, p. 184).

² Henceforth *RTS*

³ References below are to the second edition, Bhaskar (1989a) [henceforth *PON*].

⁴ For the particular case of the economic methodology literature critical realism is argued to overcome the tension between prescription and description acknowledged in that literature (C. Lawson et. al. (1996)). See also Dow (1997) and T. Lawson (1997).

realism in that new dialectics is shown to emerge logically from the internal contradiction of critical realism. This contradiction is not identified and transcended in Bhaskar's 'dialectical critical realism' (*Dialectic*) - which is 'on the whole, a preservative generalization [i.e. extension] and enrichment of hitherto existing critical realism' (op. cit., p. xiii) - so new dialectics transcends critical realism and 'dialectical' critical realism alike.

Section two will detail the immanent critique of critical realism. Section three presents new dialectics as the transcendence of critical realism, followed by concluding remarks in section four.

(2) Immanent Critique of Critical Realism

The backdrop to the critique below is Bhaskar's own critique of orthodox philosophy. Bhaskar argues that orthodoxy fails to sustain the distinction between ontology and epistemology. The critique below - if it is accepted - demonstrates that Bhaskar and critical realism (critical realists endorse the essentials of Bhaskar's conception of ontology and epistemology) has gone too far in the opposite direction. Critical realism neglects the *intrinsic links* between ontology and epistemology due in large part to its account of the relation between thought and the objects of thought. When these links are examined then it becomes clear that the epistemology and method of critical realism cannot sustain the critical realist social ontology⁵. Firstly the critical realist method for social science is outlined. Secondly the method is shown to preclude any theoretical anticipation of novel change despite its extreme generality (it is compatible with many specific methods). Thirdly the restrictiveness of the method is suggested to follow from the 'non-isomorphic' and causal relation between thought and reality upheld by critical realism. Fourthly the non-isomorphism underlying the critical realist method is argued to preclude the theorisation of structural transformation even *after* it has occurred so that the critical realist transformational social ontology collapses. Finally objections to the argument, including those of 'dialectical critical realists', are countered and the practical as opposed to philosophical difficulties facing critical realists are raised.

Transcendental Deduction

Bhaskar calls the critical realist method for social science *transcendental deduction*. According to Bhaskar transcendental deductions, or arguments, are species of retroductive ones where 'a retroductive argument moves from a description of some phenomenon to a description of something which produces it or is a condition for it' (Bhaskar (1986)⁶, p. 11). The distinguishing feature of the transcendental species is that its premises are social activities as conceptualised in experience (*PON*, p. 50). They lie at the heart of critical realism because philosophy, as well as social theory, is constituted by them (*PON*, ch. 1). Bhaskar initially derived the notion from that of Kant but sees it as overcoming Kant's individualism and idealism and later

⁵ To state the same thing in critical realist terms (from *Dialectic*, p. 107 and p. 204; see also *PON*, ch. 1): the critical realist 'philosophical ontology' is fundamentally at odds with the 'scientific ontology' to which the critical realist method necessarily gives rise.

⁶ Henceforth *SRHE*.

characterises 'dialectical arguments' as species of transcendental ones (*Dialectic*, pp. 107-108 and p. 396). The method is explained below.

'Transcendental deduction' is underlied by a general conception of the relation between individual agent and social structure. In their conscious, everyday activity human agents are understood to be reproducing or transforming (for the most part unintentionally) their social relationships. For example, by entering into marriage couples are helping unintentionally to sustain the institution of marriage within society (*PON*, p. 44). Other simple examples are the wage-labour relation and the landlord-tenant relation. The possibility of social transformation is one reason why Bhaskar calls this conception the *transformational model of social activity* (*PON*, ch. 2; *SRHE*, ch. 2; *Dialectic*, pp. 152-172)⁷. For critical realism an internal network of social relations essentially constitutes a social structure (such as the economy). Social structures can never be perceived directly, they are 'non-actual'. Knowledge of them is possible because they combine to generate directly perceived ('actual') social forms and activities which provide the key to the method.

The basic method consists in the move from the 'actual' pre-conceptualised social forms or activities to the 'non-actual' social structures and mechanisms that generate these forms. Thus it is a move from a perceptible effect to its imperceptible structural cause or condition. The move, or 'hypothesis', is aided by the use of concepts and models 'borrowed' from established theories so displays something like a logic of analogy and metaphor (Lewis (1996)). The example of Marx's method in *Capital*, as interpreted by critical realists, will be used to illustrate the method. This is an illustration often given by critical realists themselves (e.g. *PON*, ch. 2; Sayer (1992), ch. 4; Pratten (1993); Marsden (1998))⁸. According to Bhaskar:

Capital may most plausibly be viewed as an attempt to establish what must be the case for the experiences grasped by the phenomenal forms of capitalist life to be possible. (*PON*, p. 51)

The phrase 'phenomenal forms' is interpreted by Bhaskar to correspond to the critical realist notion of 'social forms' or pre-conceptualised social activities. In order for an individual to undertake a social activity they must have some concept of what that activity is. For example 'commodity', 'exchange value', 'money', 'capital', 'wages', 'profit', etc. are economic concepts used necessarily by all economic actors. They represent social agents' prior conceptualisations of the social world. The social scientist is able to use such concepts (actual 'forms') as premises for the deduction of the underlying ('non-actual') economic structures and mechanisms which are their

⁷ A second reason for the term is Bhaskar's invocation of an Aristotelian paradigm whereby any conscious individual action is to be understood analytically as a transformation of prior social materials. For example, the individual act of writing transforms the prior social product of paper, employing social resources such as language and pen or computer, so as to produce a new social product such as a book (*PON*, ch. 2).

⁸ This aspect of critical realist method can be traced back to an initial article by Geras (reproduced in Geras (1986), ch. 3). John Mepham (in Mepham and Ruben (1979), Vol. 3, ch. 5) developed Geras' work and Derek Sayer consolidates and further develops the ideas in his *Marx's Method* (1983), a book which must be considered one of the most extensive realist accounts of the topic; Jessop (e.g. 1982), Andrew Sayer (1992, ch. 4), Bhaskar (e.g. *PON*, p. 108), Marsden (1998) and other critical realists refer to it.

causes or conditions⁹. Consider the ‘value form’ and ‘wage form’. On this interpretation Marx takes the prior conceptualisation of ‘value’ as the premise for the deduction of the ‘law of value’. A specific social structure, where isolated commodity producers produce for market exchange, is hypothesised to underlie value and then a mechanism whereby exchange values are regulated by labour time is deduced from this structure. Similarly, the concept of ‘wage’ is premise for the hypothesis of a social structure where workers are divorced from the means of production (so that labour is ‘doubly free’). From this social structure the mechanisms of labour power and its production of surplus value when put to use by the capitalist are deduced.

Once competing hypotheses of underlying structures have been made they must be tested empirically. Critical realists take seriously the high difficulty of experiment in social science relative to natural science. In the absence of experiment hypotheses are tested, for the most part, by their relative degrees of explanatory power regarding specific social phenomena (*SRHE*, p. 107).

Preclusion of the Theoretical Anticipation of Novel Change

The critical realist method, despite its generality, precludes theorisation of novel change prior to its occurrence. The argument for this assertion is straightforward. Clearly, it is only once a novel change of structure has occurred that the new structure can be transcendently deduced from the new effect or form it generates. Prior to its occurrence, the new structure can be anticipated only through knowledge of existing structures. Such anticipation does not constitute a transcendental deduction because it is not a theoretical move from an effect or form to its cause or condition. On the contrary it constitutes the theoretical move from causal structure(s) to impending novel effect; the very opposite move to a transcendental deduction. Why then do Bhaskar and critical realists endorse transcendental deduction? Has a simple formal error been made that is inessential and so remedied easily or is something fundamental at stake? It will be argued below that the reason lies at the very foundations of critical realism.

Non-Isomorphism of Thought and its Object

‘Critical realism’ was born as a specific form of ‘scientific realism’ which asserts independence of the objects of science from scientific practice. The philosophical term ‘realism’ applies, more broadly still, to any view that asserts some significant degree of mind-independence of things¹⁰. Once the obvious distinction is made the question arises as to the precise relation between a real object and its concept. Bhaskar insists that object and concept are entirely different. He states precisely that thought is never ‘isomorphic’ to the objects of thought nor indeed does it resemble them in any way (*RTS*, p. 249; *SRHE*, pp. 50 - 56; see also *Dialectic*’s sustained polemic against subject-object identity theory). The term ‘isomorphism’ (‘iso’ = same; ‘morph’ =

⁹ Lawson (1997), ch. 15, argues that not just mere pre-conceptualisations, but partial event regularities, or ‘contrastive social demi-regularities’, such as the consistently poor relative economic growth rate of the UK, provide the crucial premises for transcendental deduction in social science. He explains such ‘demi-regs’ as analogues of experiments involving a primary group and a control group (e.g. randomised control trials). The key features of transcendental deduction are retained.

¹⁰ Bhaskar discusses forms of realism in *SRHE*, pp. 5-10; see also Hausman (1998).

shape) can be taken broadly to refer to a situation where relata have some essential feature in common; without any such feature there is no essential link, and so no rationally discernible connection or ‘mapping’ between them. The non-isomorphism is underlined by Bhaskar’s emergence theory of the mind-body relation, dubbed ‘synchronic emergent powers materialism’ (SEPM), whereby thought is a power, *sui generis*, that emerges from the complex structure of (parts of) the body (*PON*, ch. 3). His theory entails that the relation of thought and object is causal; specifically, that reasons cause intentional human activities.

Inability to Theorise Structural Transformation

It can now be seen just why transcendental deduction is advocated. Despite the apparently close relation of a social form to its underlying social structure the case remains that the social form as a concept, and the social structure as a real object generating the form, are, like all concepts and objects, in a *non-isomorphic* relation according to the most basic and general premise of critical realism. The immediate and inevitably corollary must be that there can be no rationally discernible connection or ‘mapping’ between social form and social structure. It is vital to note that thought and object are utterly different in principle. So there can be no recourse to the view that they have *some* rationally discernible connection, however weak. This is the force of the term ‘non-isomorphism’. Now, in the absence of any rationally discernible link, the form that serves as premise can tell the scientist one thing and one thing only: *some* underlying structure has produced it. It cannot reveal just what this structure is nor can it provide any further structural information. Therefore the given form does not provide any clue as to what novel forms and structural developments are likely to occur and the scientist, given the premise of the form only, is forced to hypothesise static structures that generate the form and only the form.

Consider, by way of analogy, a familiar case of structural transformation in biological science, the process whereby a chicken’s egg transforms into a chicken. The position faced by the critical realist social scientist is analogous to that of a biologist observing the egg but unable to examine its inner structure or to observe the transformation of the egg into a chicken. In such circumstances it will be difficult enough for the scientist to hypothesise a structure and mechanisms compatible with the ‘egg form’. It would be sheer fantasy for the scientist to hypothesise a structure capable of immanent transformation into a chicken; any such posited structure must arise from outside the transcendental premise of the ‘egg form’ - it cannot be transcendently deduced. So transcendental deduction must seriously misrepresent its object by wrongly attributing stasis to it. Any attempt to include self-change is a matter for speculation and not social science so hypothesised structures will be unduly static in opposition to the transformational social ontology.

It is true that the transformational model of social activity seemingly implies a closer link between structure and form than that between, in the analogy, the ‘egg form’ and its underlying structure and mechanisms. Unlike the biologist, the social scientist knows that her premises (social forms) are, as Bhaskar puts it at one stage, ‘...*not* externally related and contingently conjoined to what happens in the human sphere, but internally related to and [partly] constitutive of it’ (*SRHE*, pp 160-161; emphasis in original). However, the analogy between egg shell (form) and its contents

(structure) is precise in the crucial respect of their non-isomorphic relation. So to deny it would be, quite simply, to deny the fundamental premise of critical realism.

The analogy also denies the scientist direct empirical observation of the egg's transformation into a chicken. This denial would be arbitrary if the example was being considered for its own sake or, indeed, if an analogy was being made with some other non-social structure. But the example is here being used by way of analogy with social structures. The reproduction and transformation of social structures constitutes human history. A distinctive feature of this history is that it is unidirectional; human history does not repeat itself in the manner of the continual cycle of chicken and egg. This is precisely a feature that the 'transformational model of social activity' is supposed to incorporate. At any point in time there are a unique set of forms and structures whose evolution will be correspondingly unique. Therefore reference to past forms and structures will not overcome the problem, in the way that reference to past chickens is possible in the analogy of chicken and egg.

Significantly, in his account of natural science, Bhaskar recognises structural stasis as the corollary of concept / object non-isomorphism - thus he writes 'changes in things, I have argued, are explained in terms of unchanging things' (*RTS*, p. 208). It is in his *social* ontology that Bhaskar first introduces transformation of underlying structures. He accepts the *ontological* point that social structures transform but does not recognise the *methodological* contradiction elaborated above.

The above considerations lead to an apparent terminological inversion by critical realism which, once corrected for, will allow the contradiction between the critical realist social ontology and method to be stated in formal terms below. Prior to this statement, two points can be noted. Firstly the discussion above explains key features of transcendental deduction. In the absence of an isomorphism of form and underlying structure how can hypotheses be generated? By analogy and metaphor; the adaption of models and concepts 'borrowed' from existing theories. Given this same absence, how can the relative merits of competing hypotheses be appraised? By empirical test - in the social sciences mainly tests of explanatory power. Secondly a corollary of the argument above is that 'transcendental deduction' is highly counter-intuitive, entailing, as it does, the implausible view that there is no discernible link between a social form such as 'exchange value' and underlying social structure such as private production for exchange. Once the argument for a contradiction between the critical realist ontology and method is formally stated the counter-intuitive nature of transcendental deduction will be confirmed against possible critical realist objections.

Inversion of Form and (Fixed) Essence

Collier (1989), endorsed by Bhaskar (*Dialectic*, p. 50), distinguishes between structural type and specific 'tokens' or 'structurata' of the type. An essential structure that has been hypothesised to underlie a social form may be instantiated (i.e. may exist in) a number of different ways, these different ways are its tokens or structurata. For example, 'Fordism' and 'post-Fordism' are two possible tokens of the same structural type, viz. capitalism. At the same time, and as shown above, a transcendently deduced structure cannot be rationally anticipated to produce a novel form; its essential feature is that it produces the specific form that served as premise for its

deduction. For example, if the capitalist structure was, somehow, ‘transcendentally deduced’ from the premise of the ‘wage form’ then all possible tokens of the capitalist structure - so including ‘Fordism’ or ‘post-Fordism’ - must generate the wage form. This has the peculiar result that Bhaskar’s ‘forms’ must remain fixed while his ‘essences’ (social structures) can have various specifications (different tokens or ‘structurata’). Now, on the commonly understood meaning of the terms ‘form’ and ‘essence’ the *essence* remains the same and the specific *form* can vary; this is what is usually meant by the term ‘transformation’. Thus Bhaskar inverts the usual meaning of the terms ‘form’ and ‘essence’. Undoubtedly the inversion is of great significance as regards the critical realist interpretation of Marx. When Marx referred to ‘phenomenal forms’ did he make the same peculiar inversion or is he not a critical realist after all? This issue will not be explored directly below though section three will present an interpretation of Marx which does not commit him to the inversion. Instead the argument will focus upon the deficiencies of the commonly understood model of essence itself.

To avoid the terminological inversion referred to above it may be better to call the ‘form’ a ‘pre-conceptualisation’. The essence of a transcendentally deduced structure (its ‘type’) is then that it produces a particular pre-conceptualisation (that from which it was hypothesised). This essence must remain fixed through the many different tokens (structurata) through which it is instantiated. Thus in the example above both Fordism and post-Fordism must generate the pre-conceptualisation of the wage. The problem with this is that the key difference between the social and natural realms is supposed, on the critical realist view, to be that in the social realm, unlike the natural realm, the essential structural level is *not* fixed. On the contrary essential social structures (and not merely ‘structurata’) are supposed to be reproduced *and transformed* through the medium of social agency. For critical realism, it is precisely such *essential* structural transformation (summarised in the term ‘development’ and analogous to biological examples such as that of chicken and egg employed above) that constitutes the significant aspect of human history. Critical realism *promises* to sustain development but this is precisely what the fixed essence structures generated by the critical realist method are incapable of. The only significant change of social structures that can occur is their complete *abolition*. So, for example, any move from Fordism to post-Fordism (from *any* ‘token’ of capitalism to another ‘token’) would have to be considered entirely inessential and correspondingly insignificant. In other words the critical realist method results in a conception of essential structures as rigid. Essential structural transformation or development through the medium of agency cannot be sustained. Whereas the critical realist social *ontology* requires that social structures are reproduced or *transformed* by social agency, the critical realist *method* ensures that all theorised social structures are essentially reproduced or *abolished* through that medium.

(Dialectical) Critical Realist Objections

The account of transcendental deduction above shows it to be not only restrictive but counter-intuitive. For the relation between exchange value (‘social form’) and private commodity production (‘hypothesised structure’) is not plausibly understood as that between hypothesis and form. Rather the one would seem inconceivable without the other *prior* to any empirical ‘test’. Similarly for the relation of the wage form to

underlying ‘doubly free’ labour - though this case is less clear cut. The same considerations apply to typical examples of social structure, such as the marriage relation or that between landlord and tenant. No empirical test would seem to be required to establish these underlying social structures; they are conceptually necessary prior to any such test. Only the Marxian invocation of ‘socially necessary labour time’ bears any close resemblance to the notion of a hypothesis to be tested¹¹. One reason for the enduring appeal of critical realism is that both Bhaskar himself and other prominent critical realists such as Andrew Sayer do *appear* to accommodate the observations made above. The constraints of transcendental deduction are sometimes either obscured or even denied. Sayer and Bhaskar will be considered in turn below. Both authors, it will be argued, do adhere to the account of transcendental deduction presented above but fail to recognise the stasis generated by the method. This will strengthen and clarify the general argument that the critical realist social ontology is necessarily incompatible with the critical realist method.

Sayer (1992) recommends that the internal relations that define social structure should be worked through prior to empirical work (ch. 3 and ch. 4) and so *appears* to break free from the constraint of transcendental deduction as described above. Sayer’s recommendation is based on the recognition that there must be *implicit* knowledge of internal relations; knowledge not immediately explicit to the mind. However the appearance that Sayer has broken free of transcendental deduction is illusory. Sayer fully subscribes to the critical realist view that there is no intrinsic link (isomorphism) of thought and its object but that they causally interact (op. cit., pp. 65-71 and p. 162). The fact that the working through of internal relations prior to empirical work provides a grasp of real objects therefore becomes almost inexplicable. The only explanation can be that the internal relations are the result of *prior* transcendental deductions (this is made clear by Sayer - op. cit., pp. 160 - 162)¹². So the critique above, demonstrating that the procedure of transcendental deduction, based on a non-isomorphism of concept and object, precludes any theory of transformation and is highly counter-intuitive, applies to Sayer after all. The worth of Sayer’s insights on the implicit knowledge of internal relations can only be sustained (and, indeed, will be developed fundamentally) by the transcendence of critical realism.

Bhaskar’s notion of ‘judgemental rationality’ (e.g. *PON*, ch. 2) entails that it is, and must be, possible to adjudicate rationally between competing theories despite the sharp distinction between concept and object. Does this notion undermine the contention made above that there can be no rationally discernible link between a form and underlying structure? By no means. The above exposition does not deny that judgements between theories are possible given a critical realist ontology and method; on the contrary it emphasises that critical realists root such judgements, ultimately, on empirical criteria. It is true that the difficulty of experiment acknowledged by critical realists serves to weaken significantly the ability of the social scientist to discriminate between theories. In this aspect the account above resonates with Collier’s (1989)

¹¹ Hausman (1998) makes a similar point, though in a different context, but fails to note that the key critical realist ‘non-observables’ to be hypothesised are social structures understood as sets of internally related positioned-practices.

¹² Lawson (1997, ch. 16) recognises the importance of the process of ‘abstraction’ in a manner close to Sayer’s stress on working through internal relations. Lawson’s discussion makes it immediately clear that the process of abstraction is an aid to transcendental deduction rather than an alternative to it.

view that critical realists should be pessimistic as to the critical potential of social science - but the central argument does not rest on this point¹³.

Bhaskar's more recent development of 'dialectical critical realism' (*Dialectic*) contains many elements that would suggest, at first sight, that the critique above is obsolete at least as regards Bhaskar's own work. For example Bhaskar explicitly accepts that critical realism 'abstracts from' issues such as time and space which are central to transformation. It is precisely the aim of dialectical critical realism to reincorporate that from which was initially abstracted (op. cit., p. 8). No stronger impression could be given that Bhaskar has, through his appropriation of dialectics, overcome the original limitations of his notion of transcendental deduction and so made the argument of this paper obsolete than his explicit endorsement, in two footnotes (op. cit., p. 184 and p. 245), of Tony Smith's *The Logic of Marx's Capital* (1990). Smith elaborates a procedure, to be presented in the next section of this paper, which is solely a reconstruction of a given set of categories making their implicit internal relations explicit and eschewing any recourse to transcendental deduction.

Bhaskar (ibid.) qualifies his endorsement of Smith in two respects. Firstly he objects to the 'linearity' of the dialectic that Smith elaborates. Given that this 'linearity' is absolutely fundamental to Smith's entire project, Bhaskar's qualification suggests a misunderstanding of that project. Secondly, and what is crucial to the argument here, Bhaskar criticises Smith's omission of 'ontological' dialectic (and other forms of dialectic) on the supposition that they underlie Smith's own 'presentational' dialectic. In one sense Bhaskar makes a good point. It is true that Smith does not face directly fundamental 'philosophical' issues such as the mind-body relation as will be argued in the next section of this paper. However the sense that Bhaskar has in mind is based on his (Bhaskar's) own treatment of such philosophical issues. The 'ontological' dialectics that Bhaskar advocates incorporate his polemic against subject-object identity (so non-isomorphism of thought and its object) and retain his emergence theory of mind. In consequence, dialectical critical realism does not identify the contradiction between the transformational ontology and the method of transcendental deduction as elaborated above. On the contrary transcendental deduction is retained and 'dialectical arguments' are subsumed as species of transcendental ones (op. cit., pp. 107-108 and p. 396). So Bhaskar falls prey to essentially the same argument as does Sayer, though it must be couched in more elaborate terms, as follows.

In terms of dialectical critical realism, transformation entails 'absence'. It is the 'presence of an absence' that provides the continuity amid change that is characteristic of transformation (the theme of 'absence' and its connection to time and space runs throughout *Dialectic*). The first stage of the argument above - showing that novel structural change or transformation cannot be theorised before its occurrence - translates into the argument that the 'absence' implicated in a novel structural transformation cannot, in general, be identified until after its occurrence - this is explicitly acknowledged within dialectical critical realism (for the case of the transformation of knowledge see *Dialectic*, ch. 1, especially, p. 24, p. 31, p. 34). Such identification entails essentially the same procedure of transcendental deduction, now

¹³ The fact that argument of this paper does not rest on a critique of judgemental relativity does not imply that the argument implicitly rests on the assumption that the notion is sound.

expanded to include dialectical arguments, as that elaborated above. The next stage of the critique above translates into the position that, because of the non-identity of object and concept, underlied by Bhaskar's emergence theory of mind (SEPM), the 'absence' implicated in structural transformation can no more be 'discovered' *ex post* than prior to the occurrence of the transformation. Thus the continuity of essence that would be provided by the ability to discover an absence is denied and, as above, the only significant change of structure that can be theorised through the (dialectical) critical realist method is its complete *abolition* rather than transformation. Bhaskar enriches his *ontology* through dialectics and the notion of absence but does not and cannot, given the fundamental tenets of critical realism and dialectical critical realism alike, recognise and amend the inability of his *method* to theorise absence and so transformation.

The Practical Consequences of Critical Realism

The critique above suggests that much critical realist inspired practice is likely to take place unaware of the hidden restrictiveness, indeed basic implausibility, of transcendental deduction. For example, the necessary link between a social form such as exchange value and the social structure of generalised commodity production will be taken for granted by the theorist; the link will not somehow be 'transcendentally deduced'. This raises the question of the practical consequences of critical realism. In important respects critical realism is useful. For one thing critical realism provides a healthy antidote to some of the more extreme yet widespread 'applied methods' in social science and economics. Lawson's methodological critique of orthodox economics (e.g. Lawson (1997)) and Sayer's (related) discussion of the limited place of quantitative methodology (Sayer (1992)) are prime examples. Also critical realism provides useful positive guides to social scientists. Examples include the relational conception of social structure; Sayer's recognition of the need to make implicit internal relations explicit based on the critical realist conception of causality; and some of Lawson's methodological recommendations. Furthermore a great debt is owed to Bhaskar not least for his introduction of the notion of 'dialectics' into social scientific debate. However it remains the case immense problems face critical realist practitioners.

A number of authors have commented that it is inherently very difficult to *interconnect* the many social structures, conceived in critical realist terms, implicated in social life (Marsden (1998), Jessop (1995), Joseph (1999)). Given the variety of social relations, e.g. employer / employee, teacher / student; husband / wife, citizen / state, landlord / tenant, etc., there is the danger that it may be impossible to 'see the wood for the trees'. The key critical realist concept of structural interconnection is 'stratification' (e.g. *Dialectic*, pp. 49-56 and p. 162) but beyond the mere assertion of the primacy of one social structure (e.g. that of the economy) or another it would seem difficult to employ the notion effectively in substantive work. Problems are compounded given that such work must also incorporate the role of agency. Critical realism tells the social scientist that agents reproduce and transform structures but just what structures are being reproduced, and how, are entirely matters for substantive work (*SRHE*, p. 124; Lawson (1997), Part IV). The next section will confirm that it is virtually impossible for a critical realist social scientist to satisfactorily articulate structures (and so agents). The 'new dialectical' transcendence of the critical realist

philosophy affords a general solution to the problem of interconnection of social structure that cannot be provided by critical realism or indeed any other well known philosophy and method.

(3) How New Dialectics Surpasses the Critical Realist Method

‘New dialectics’ refers to a recent trend amongst social scientists and philosophers towards a reassessment of the Marx / Hegel relation. Chris Arthur (1993) coined the term; Castree (1996) and Saad-Filho (1995) provide overviews. A common theme, amongst the otherwise diverse positions held by new dialecticians, is some form of defence of Hegel against Marx’s early critique. Instead of emphasising Marx’s criticisms, new dialecticians argue, though in contrasting ways, that Marx’s theoretical work employs Hegel’s method to a degree far greater than recognised in most of the secondary literature (including Bhaskar’s *Dialectic*) and, furthermore, that this method is a contributor to the superiority of Marx’s theory. One important respect in which the arguments of respective new dialecticians vary is according to their relative attraction to two opposing theoretical poles: at one pole capitalism is considered to constitute a perverse reality mirroring Hegel’s idealism (e.g. Arthur (1993)); at the opposing pole Hegel’s method is interpreted as a materialist one (e.g. Smith (1990)). This section draws selectively from new dialectics in order to present a method for social science that overcomes the implausible and self-contradictory method of critical realism (and dialectical critical realism) critiqued in section two.

Given that the critique above turned on the non-isomorphic and causal relation between thought and its object underlied by Bhaskar’s theory of the mind-body relation (SEPM), the key question, from a critical realist stand-point, is just how can SEPM be replaced without entailing a reductionism or dualism and, more broadly, without falling into the epistemic fallacy and related fallacies? It must be admitted at the outset that a satisfactory response to the question is not easy to find within new dialectics. Quite to the contrary, the issue of the mind-body relation is so little addressed as to suggest that the relation is without import in any ‘new dialectical’ framework. To take a recent example, the symposium on Marxist dialectics in *Science and Society* (1998), 62, 3 - with contributions from new dialecticians such as Tony Smith, Chris Arthur and Thomas Sekine - did not contain any direct reference to the mind-body relation¹⁴. It is argued below that E. V. Ilyenkov (1977, 1982), a key reference in one strand of new dialectics literature (Saad-Filho (1995), Mavroudeas (1990), Zeleny (1981) and Banaji (1979)) though otherwise rather neglected¹⁵, does provide a transcendence of SEPM¹⁶. The corollary - given that SEPM underlies the critical realist notion of the ‘epistemic fallacy’ and related notions - is a transcendence

¹⁴ The absence of an explicit transcendence of SEPM explains Castree’s (1996) suggests that new dialectics flirts with the epistemic fallacy; Bhaskar’s criticism that Smith neglects ontological dialectics, raised in section two above, is the dialectical critical realist version of the very same criticism.

¹⁵ I should like to acknowledge Alfredo Saad-Filho, who first introduced me to Ilyenkov’s work, and Geoff Pilling, who independently recommended Ilyenkov’s work to me; both persuaded me to read Ilyenkov without prejudice. Pilling is commonly known as a prominent member of the ‘abstract labour’ school of Marxists. However his primary aim was not to contribute to any one school but rather to resurrect Marx’s philosophical method via a reexamination of the Hegel-Marx connection (Pilling (1980), especially pp. 1-8). This is precisely the aim of new dialecticians today. Pilling’s assessment of Ilyenkov can be found in Pilling (1980), pp. 198-199.

¹⁶ See Roberts (1999) for an alternative presentation of a materialist transcendence of SEPM.

of the critical realist critique of the entirety of Western philosophy (as presented throughout Bhaskar's work) and of individual disciplines such as economics (Lawson (1997)).

On the basis of the transcendence of SEPM, the work of Tony Smith (1999, 1998, 1997, 1993a, 1993b, 1990), a prominent exponent of the branch of new dialectics termed 'systematic dialectics', will be drawn upon in order to transcend the critical realist method for social science. It should be noted that Smith does not reference Ilyenkov so the synthesis is in no way endorsed by Smith himself¹⁷. Conclusions follow.

Overcoming the Contradiction Harboured within Critical Realism

Ilyenkov (1977) begins with an unusual interpretation of Spinoza's critique of Descartes. Spinoza's argument, on Ilyenkov's interpretation, is simple yet it appears to be completely unknown to critical realists or dialectical critical realists. Certainly, none of the critical realist or dialectical critical realist work referenced in this paper addresses Ilyenkov¹⁸. The importance of the argument is that it upholds an isomorphism of thought and the object of thought whilst maintaining a sharp distinction between the two, as will be explained below. It thus provides the way in which critical realism (and dialectical critical realism) can overcome the contradiction of SEPM, thereby developing itself totally and fundamentally, in order truly to critique positivism and provide an adequate methodology for social science i.e. a new dialectical methodology.

The simple point Spinoza makes is that what has emerged in the case of thought and human activity is not a power underlied by a *fixed* structure, as in Bhaskar's theory. 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. But how can this transformation be directed so as to produce 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

¹⁷ An adequate exposure of the important differences between Smith and Ilyenkov is a task beyond the scope of this paper; instead it is the key similarities that are highlighted here.

¹⁸ It is a minimum aim of this paper to persuade the reader that there are cogent philosophies for Marxism, or better, Marxist approaches to philosophy, that Bhaskar has not addressed despite his claims to the contrary (e.g. *Dialectic*, p. 352).

(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 relation to SEPM, two vital changes or reworkings have been made, requiring a profound reorientation on the part of any adherent of SEPM. Firstly ideas have been characterised as consisting in self-awareness of spatial bodily activity. Secondly, and in consequence, ideas (as aspects of reasons) are no longer considered *causal* upon spatial activity. 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 strata causal upon human activity; on this road the contradiction raised section two is inescapable. Instead the relation that follows from Spinoza’s view is that ideas and spatial bodily activity are two different *expressions* of one and the same activity. The ideal is the inner or self expression, and the spatial is the outer, external expression of the mode of activity of the thinking 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’, ‘practical adequacy’, ‘language’, ‘self-awareness’, ‘sensation’, etc. All Spinoza has done is reworked or *reconstructed* these elements so as to fathom their interconnection and so overcome the contradiction into which Bhaskar falls.

Marx’s Development from Substance to Labour

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 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 theoretical development from Substance to Labour enabled Marx to develop a systematic dialectics. It thus provides a foundation for the systematic dialectics of Tony Smith presented, below, as a transcendence of the critical realist method. Before the presentation of Smith it should be stressed that the respective positions of Smith

and Ilyenkov are by no means identical. At the root of their differences lies issue of the Hegel-Marx connection. Ilyenkov argues that Hegel does not take on board fully the materialist position outlined above - thus Ilyenkov does not share fully the Hegelian standpoint of Smith. If the argument of this paper is accepted then the nature and import of these divergencies becomes an important issue for future research. It remains the case, however, that Smith and Ilyenkov are agreed that both Marx and Hegel uphold an identity of thought and being and embrace a systematic dialectic. These similarities are stressed below.

How Tony Smith Transcends the Critical Realist Method for Social Science

Given the context of the transcendence of SEPM, Tony Smith's 'systematic dialectics' (e.g. 1998, 1997, 1993a, 1993b, 1990) will be shown to transcend, or develop fundamentally, the critical realist social ontology and thereby (i) avoid the critical realist method's counter intuitive nature; (ii) enable the theorisation of the interconnection of social structures with each other and with agents (in a manner precluded by critical realism and many other well known social theories). Smith's interpretation of Hegel and Marx's method has three main stages: the starting point, the stage of appropriation (called by Marx the 'method of inquiry') and the stage of reconstruction (Marx's 'method of presentation'). Smith's specific interpretation of Marx's application of the method will be given below.

Starting Point

Marx's starting point is the notion of 'social production' and its attendant implications gained through the philosophical critique detailed above. Given this critique the problem for systematic dialectics is *not* that of how to establish the objectivity of categories, as in the critical realist method (and other methods) because categories are isomorphic to the object realm¹⁹. The problem is, instead, to *order*, or reconstruct, in thought the categories (so aspects of objects) according to their level of abstraction and simplicity (Smith (1990), p. 34). 'Error' consists, fundamentally, in *partiality* i.e. in ignoring in theory either more abstract and simple or more concrete and complex categories so leading to *disorder* in the attempted explanation of events. Marx's object is the fundamental one of 'social production' itself already understood to exist in historically specific forms so that it is the current 'mode of social production' that is of interest²⁰.

Stage of Appropriation

¹⁹ Systematic dialecticians diverge on the issue of the identity of thought and being. At the risk of oversimplification Arthur, Reuten and Williams can be seen as arguing for an isomorphism that is specific to the capitalist mode of production (see Reuten and Williams (1988), Part One; Reuten (1997, p. 156); Arthur (1979, 1998)). Tony Smith's version of systematic dialectics is fundamentally different because Smith explicitly rests systematic dialectics on a *transhistorical* isomorphism (i.e. one not limited to a specific historical epoch) of thought and its object (Smith (1993b), p. 8; Smith (1999)). As noted above, systematic dialecticians provide no explicit transcendence of SEPM justifying an identity of thought and being. In consequence they are prone to the charge of committing the epistemic fallacy unless they adopt an argument such that of Ilyenkov.

²⁰ The mode of production in Marx's day remains essentially the same as that of today.

The stage of appropriation consists in the effort of running over in thought all categories that may be relevant to the object realm, the current mode of social production. There is nothing mysterious about this procedure. In everyday life, and through the media and other sources many categories become familiar, a point which is recognised by critical realists through their notion of ‘social forms’ and activities (see section two above). Through specialised sciences further categories are uncovered and theories are produced which must be considered, along with the ‘everyday’ categories, in the stage of appropriation. This stage of systematic dialectics differs from the corresponding stage of the critical realist method because of its different context - the background notion of ‘social production’ - and its correspondingly different purpose, that of ordering the categories in thought in accordance with their level of abstraction and simplicity.

The ultimate aim of this stage is to find the starting category for the stage of reconstruction that follows. According to Smith (1990, p. 195) the starting category must fulfil two requirements: (i) it must define the object realm - for Marx the starting category must therefore define the current mode of social production; (ii) it must be the most simple and abstract category of the object realm, i.e the first category in a linear²¹ order from the most simple and abstract category to ever more complex and concrete categories. It was noted above that Bhaskar denies the linearity of a dialectical progression. Lawson (1997, ch.16) and Sayer (1992) also make it clear that they do not envisage a linear progression of categories. This indicates that, within systematic dialectics, the terms ‘abstract’, ‘simple’, ‘concrete’ and ‘complex’ have a very different meaning to that of critical realism, as will be detailed below.

The starting category that Marx arrives at is the ‘commodity-form’, which, following Banaji (1979), p. 34, is the concrete-historical synonym of Marx’s notion of ‘value’. It is well known that there is much debate on the precise nature of Marx’s value theory (the theory of the substance, form and magnitude of value). The debate is outside the scope of this paper. However, the importance of the debate, from a systematic dialectical perspective should be clear, given that the commodity-form, or value, is the starting category for the stage of reconstruction of the object realm, to be explicated below.

The Stage of Reconstruction

Once the starting category is established, Smith’s systematic dialectics proceeds to reconstruct the fundamental categories of the object realm in thought according to their level of abstraction and simplicity. The nature of the stage of reconstruction - and so the meaning of ‘level of abstraction and simplicity’ in this context - is best understood via the critical realist notion of structural tendencies. According to the critical realist method once a social structure has been hypothesised it is possible to deduce the tendencies it imparts upon agents (as explained in section two). For example once a structure of private production for exchange has been hypothesised critical realists suggest that the law of value, where prices tend towards labour time,

²¹ Here ‘linearity’ refers to the unidirectional and unique succession of categories developed by the method of systematic dialectics. It does not imply categories are independent and so can be added to one another (as in a ‘linear’ equation); Arthur (1997) demonstrates superbly that the systematic dialectical development of categories is one of transformation rather than addition. See also below.

will operate due to the tendential activities of social agents. These tendencies operate in real time and may be ‘modified’, i.e. counteracted, by the effects of different structures. For example critical realists would interpret the later deduced law of the equalisation of profit rates as ‘modifying’ or counteracting the law of value (Marsden (1998); Sayer (1983)). Smith’s systematic dialectics is more subtle (the exposition below follows Smith (1993a)). The initial social category, the commodity form, does indeed define a social structure of private decentralised production (though this was not hypothesised). Furthermore this structure does impart tendencies upon social agents. For one thing agents will tend to exchange in order to survive. However, these tendencies are not in real time. Rather they are *logical* tendencies based on consideration of what agents would do given only their transhistorical characteristics (i.e. those not limited to a specific epoch), such the need to eat, and the specific social structural form under consideration.

Smith’s rationale is straightforward. The tendencies cannot be in the real world because, at the start of the enquiry, most categories defining the real world have been abstracted away from. Only once all categories have been reconstructed can tendencies be considered real world tendencies. For this reason the tendencies that are initially significant for systematic dialectics are those that lead to the emergence of a category defining a new social form. Consideration of the activities agents would necessarily tend to undertake, given only the structure defined by the commodity form, leads to the conclusion that the ‘money form’ would be introduced. Agents would tend to introduce money as the universal equivalent, i.e. a standard measure of value, in order to ease the exchange of commodities. It is vital to note that this is not a historical deduction or empirical prediction; it can be neither because in concrete reality there are many more categories than the commodity form. It is a purely logical development; the outcome, as it were, of a thought experiment based on the question ‘what would agents necessarily tend to do given only that they are in the structure defined by the commodity form?’²²

The money form is a more complex and concrete category than the commodity form. The ‘determinations’ of the commodity form remain because the money form is still a form of private, decentralised production. However new determinations have now been developed in the money form, viz. there is now a universal measure of value termed ‘money’. In turn this more developed categorical structure can be examined logically, as in a thought experiment, for any necessary tendencies that agents within the form would have. Ultimately it is argued that agents within the money form would tend to evolve the ‘capital-form’, a form where the aim of production is to increase an initial sum of money invested. The basis of the argument for this is that the hoarding of money by agents decreases the risk associated with the anarchy of the market. Again it is vital to note that this is a purely logical tendency; this is not an historical argument for the emergence of capital. The tendencies are not real-time tendencies;

²² The well known text book explanation of money as introduced due to its superiority over barter may appear similar to that above. However, the logical status of the argument in the text books is always rather vague; and the historical specificity of the argument is ignored. The starting point of Smith’s systematic dialectic, incorporating Marx’s value theory, ensures the historical specificity of his argument. The nature of his systematic dialectics provides its logical status. Smith (1998) appears to backtrack from his derivation (possibly in response to Arthur (1997)); the argument of this paper entails that such backtracking is not necessary.

nor are they idealised or averaged out conceptualisations of history (as Engels suggested; see Arthur (1997)). Rather they are logical tendencies in the manner of a thought experiment. In turn the capital form can be examined for tendencies to develop through more concrete and complex forms due to the necessary tendencies imparted on social agents.

What use is this strange ‘thought experiment’? Well, the important thing to note is that each development has yielded a category that is part of the capitalist mode of production: ‘commodity’, ‘money’ and ‘capital’ are categories known to all economic actors. Furthermore, by the end of this sequence the necessary relations that hold between commodity, money and capital have been comprehended. It has been shown how, under conditions of private, decentralised production, the category ‘money’ is logically necessary to the category ‘commodity’ and vice versa. Equally for the relation between capital and the other two categories. Note that this is necessity of the systematic dialectical nature, rather than the certainty of analytical logic. It is, in analytical logic, logically possible for the commodity form to fail to develop into the money form due to the vagaries of human nature or other chance occurrences. However, such a possibility is unlikely; this is the force of the term *necessary tendency*. It is enough to tell any theorist, who is dealing with a social system of private decentralised production, and who employs the category ‘money’, that she must also employ the categories of ‘commodity’ and ‘capital’ and all other reconstructed categories unless an explanation for their absence is provided. Thus systematic dialectics is able to define precisely the nature of the complex internal relations that constitute society and it provides a method to make these implicit relations explicit in thought. It was argued above that neither of these aims could be achieved by critical realism. The way in which systematic dialectics enables theorisation of essential development of social structures through time will be explained below.

As the reconstruction of the fundamental categories of the object realm becomes more and more concrete and complex, it becomes legitimate to consider the complex structural relations for any historical tendencies of development that they contain. Such historical tendencies include, on Marx’s account, the tendency for the concentration and centralisation of capital and for periodic crises. It is always possible that, prior to the complete reconstruction of the fundamental categories of the object realm, newly developed tendencies could reverse prior tendencies, though as the reconstruction becomes more concrete the chances of a fundamental reversal recede (Smith (1990) illustrates this point clearly through his defence of Marx against Hegelian criticisms at each level of abstraction and simplicity of Marx’s theory). Thus, although the initial categories provide purely logical tendencies, the gradual reconstruction of the fundamental categories of the object realm allows more and more clearly defined historical tendencies to emerge. At the same time, the reconstructed categories leave a vast mass of contingency that social sciences must uncover (even sympathetic commentators have neglected this point (e.g. Saad-Filho (1995))²³. Not

²³ See Smith (1993a), p. 27).

least of this contingency is that inherent in any situated human activities (on which it must be remembered all tendencies have been based)²⁴.

(4) Conclusion

The main arguments of the paper are summarised below followed by a concluding remark.

The first half of this paper argues that the critical realist procedure of hypothesising essential structures and mechanisms from their appearance forms precludes theorising the transformation of social structures. This contradicts the claim that critical realism provides a transformational model of social activity. The second half of the paper presents new dialectics as the transcendence of critical realism, drawing on Ilyenkov and Smith. Whereas critical realist method starts out from individual forms, the method of new dialectics starts from, in principle, the entire given realm. Whereas the 'method of inquiry' of critical realism consists in the hypothesis and test, according to explanatory power, of social structures, the 'method of inquiry' of new dialectics consists in an appropriation of all relevant material of the object realm with the specific intent of reaching the most simple and abstract category. Whereas the 'method of presentation' of critical realism is a relatively secondary matter with all the hard work of theory done, the 'method of presentation' of new dialectics is of fundamental significance, for it should reveal systematically the development and interconnection of the fundamental categories of the object realm. In summary, whereas critical realist method is based on the attempted *hypotheses* of non-actual structures and mechanisms, that of new dialectics is based on a *reconstruction* of the totality already given at the very starting point. For this underlying reason the method of new dialectics *consists in* the tracing of necessary structural interrelations through immanent structural transformation. If successful this procedure reveals the tendencies for historical transformation of the object realm. By contrast the critique shows that neither transformation nor necessary interconnection can be accommodated by the critical realist method.

Critical realism and new dialectics share the same broad scope and the same broad goals: knowledge of the real world and human emancipation. It is to be hoped that critical realists and new dialecticians work together towards these aims. To this end a careful examination and debate of their relation is vital. The aim of this paper has been to contribute towards a triggering of such debate.

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²⁴ Both Smith (1993b, ch. 6 and ch. 7) and Reuten and Williams (1989 pp. 133-134, pp. 166-167) note that the problem known as that of 'microfoundations' in the economics discipline and, more broadly, as that of 'structure and agency' in sociology is overcome through systematic dialectics.

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