HEGEL, MARX AND DIALECTIC: A Debate

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PREFACE

Our purpose in this book is to discuss and to elucidate some of the central issues in the philosophy of dialectic. The essays which go to make it up arose out of a long process of discussion and debate between us and our colleagues and students, on Hegel's philosophy and on dialectical materialism, in reading groups, courses and other meetings, which we have run jointly in the University of Kent over the past few years. Hence the form of this book—a series of essays in which we develop and defend what are often conflicting accounts of dialectic and take issue with one another's views.

In a debate of this sort, it is the differences which inevitably get emphasized and accentuated. It is therefore worth stressing here some of the more significant areas of agreement between us, which help to explain why we have chosen to publish such opposed pieces together in a single volume.

First of all and most importantly, we agree that dialectic—the philosophy of Hegel and of Marxism—is a vital and fruitful area of philosophy and one which it is worthwhile and necessary for philosophers to discuss. In this conviction we find ourselves in disagreement with many contemporary philosophers (especially in the English-speaking world). In our view, the issues and ideas raised by dialectic and discussed in the philosophies of Hegel and Marx have for too long been dismissed and ignored by the mainstream of British academic philosophy. Recently, however, we are pleased to note that there has been a renewal of interest in these issues, especially among younger British philosophers; and we hope that this book, together with others which are appearing in this series and elsewhere, will further encourage and stimulate this development.

Secondly, we both believe that discussion and debate of these ideas, in the clearest possible terms, is the best way of
demonstrating their value and power. The Marxist tradition has often been accused of being ‘dogmatic’, and it must be acknowledged that sometimes this description has been warranted. Yet it is ironic that this should be so when a central element in Marxist philosophy is the notion of dialectic, with its emphasis on the rejection of rigid antitheses, and its conception of truth as emerging out of criticism and contradiction in a way that eludes any final systematization. In this book we try to exemplify, in practice, the anti-dogmatic potentialities of dialectic. For a further element of common ground between us is the view that both in philosophical theory and in social development progress arises out of contradiction, and that the negation of a particular standpoint can produce not nullity, but a new and positive outcome. Particularly in the present context, when all sorts of dogmas are put forward under the title of ‘dialectic’, we affirm our belief that the significance and importance of the philosophies of Hegel and Marx can best be brought out by means of the fullest possible discussion and debate of their ideas—in the confrontation between different interpretations of dialectic (as in the present book) and also between dialectic and other approaches in philosophy.

Essays 1 and 2 appeared originally in Radical Philosophy 14 (Summer 1976). We have had very useful discussions of them, and of some of the other material in this book, with students in our ‘Dialectical Materialism’ seminar in the University of Kent, and with people associated with Radical Philosophy. We are grateful to all those who have helped us with their ideas and comments, but especially to Roy Edgley, whose constant suggestions, criticisms and encouragement at all stages of the writing of this book have been very helpful to both of us.

Canterbury  Richard Norman  September 1978  Sean Sayers

ON THE MARXIST DIALECTIC

Sean Sayers

Wherever there is movement, wherever there is life, wherever anything is carried into effect in the actual world, there dialectic is at work. It is also the soul of all knowledge which is truly scientific.

(Hegel, Enc. Logic, sec. 81Z, p. 148)

I

The idea of contradiction in things is the basic principle of dialectical materialism, the philosophy of Marxism. In Mao Zedong’s words:

Marxist philosophy holds that the law of the unity of opposites is the fundamental law of the universe. This law operates universally, whether in the natural world, in human society, or in man’s thinking. Between the opposites in a contradiction there is at once unity and struggle, and it is this that impels things to move and change.

(‘On the Correct Handling of Contradictions Among the People’, p. 91)

This doctrine, which is the fundamental basis of Marxist thought, is easy to state and no doubt already familiar, but it is not easy to grasp and understand.

This difficulty is due in part to the inherent difficulty of the subject-matter: for dialectical logic sums up the laws of motion of things at their most general level and provides the most universal of all the principles of thought. But there is also another difficulty to be overcome; for the dialectical way of seeing things seems to fly in the face of all traditional philosophy and common sense. The idea of contradictions existing in things seems absurd and impossible—a metaphysical and mystical extravagance and the very opposite of scientific and rational thought. And thus, despite the ever-increasing influence of Marxism, its philosophy is frequently
rejected as violating the most elementary laws of logic and preconditions of rational thought. The philosophy of dialectics is rejected and the attempt is made to revise Marxism accordingly.

My purpose in this essay is to try to show that the dialectical outlook is not an absurd, irrational and confused extravagance, but rather an attempt to express truths of fundamental philosophical importance; and that it is not vulnerable to the arguments commonly brought against it (which, I shall attempt to show, merely reveal an ignorance and misunderstanding of the meaning of dialectics). I shall rely primarily upon the classic presentation of dialectical materialism as it is implicit in Marx’s writings and explicitly formulated by Engels, Lenin and Mao. I shall also refer often to Hegel, who is, as Marx and Engels repeatedly acknowledge, the source of their dialectical philosophy. Indeed, it is difficult to understand that philosophy without going back to Hegel; for it is only in Hegel, and particularly in his Logics, that the concept of contradiction is explained and defended in detail against opposing points of view.

What then is dialectic? First of all one must see that it is not a mere absurdity but a philosophy, a logic, a way of seeing the world. And the opposing point of view is not simply common sense, pure reason or logic just as such, but rather an opposing philosophy, logic and way of seeing things. So what we have is an argument between two different philosophies: on the one hand, dialectic; and on the other hand, what Hegel and what Marxists have called the ‘metaphysical’ worldview.1

The metaphysical outlook is succinctly summarized in Bishop Butler’s saying, ‘Everything is what it is and not another thing’. A chair is a chair, a circle is a circle, etc.—in general \( A = A \), and \( A \) cannot at the same time be not-\( A \). These seem such obvious and evident truths that it would be futile to deny them. And, of course, it is true that \( A = A \); that everything is identical with itself; dialectic does not deny this

triviality. Hegel, for example, says, ‘The subsistence or substance of anything that exists is its self-identity; for its want of identity, or oneness with itself, would be its dissolution. But self-identity is pure abstraction’ (Phenomenology of Mind, B, p. 113; M, p. 33).

Everything has self-identity, being-in-itself, but the matter does not end there; for nothing is merely self-identical and self-contained, except what is abstract, isolated, static and unchanging. All real, concrete things are part of the world of interaction, motion and change; and for them we must recognize that things are not merely self-subsistent, but exist essentially in relation to other things.

Dialectical philosophy is the attempt to portray things as concrete, and it opposes the abstract character of metaphysics. Lenin called dialectic ‘the concrete analysis of concrete conditions’. But one must be careful to understand the meaning of ‘concreteness’ in this context. When one hears talk of concrete things one tends to think of chairs, tables and other objects immediately about one. But according to dialectical philosophy, the objects immediately about me—this table, that chair—considered in themselves are abstractions. An object, regarded on its own, by and in itself, is, according to Hegel, abstract, in the literal and precise sense that it has been taken out of its context and is viewed in isolation. The metaphysical outlook is abstract in that it considers things merely in themselves, merely as they are, as self-subsistent, as isolated and abstracted from their context. According to dialectical thought, real, concrete things are not abstract in this way, but embedded in the world: essentially related to other objects and in interaction with them. To quote Hegel again, ‘A determinate, a finite, being is one that is in relation to an other; it is a content standing in a necessary relation to another content, to the whole world’ (Science of Logic, p. 86).

Not only does the metaphysical outlook treat things as isolated; it also has the effect of arresting all movement and development in things and considering them as static. The
object characterized by mere self-identity is static. It is a mere positive existent thing, a given fact—it just is what it is; and the world, according to this view, is a mere collection or diversity of such things, indifferent and inactive in relation to each other.

Again Hegel argues that such a view is abstract. All concrete and determinate things are in a process of movement and becoming, of development and change. This is equally essential to all concrete things. ‘We are aware that everything finite, instead of being stable and ultimate, is rather changeable and transient’ (Enc. Logic, sec. 81Z, p. 150).

To say that everything is in a constant process of development and change is not, of course, to deny that things can be relatively unchanging and stationary. It is, however, to say that rest is ‘conditional, temporary, transitory [and] relative’ whereas ‘development and motion are absolute’ (Lenin’s words in his Philosophical Notebooks, p. 360).

According to dialectic, this is a truth of universal application and great philosophical importance. In all spheres we find it to be true and yet denied by influential methods of thought which are based upon the metaphysical outlook. It is evident, for example, that all concrete societies are in a process of development and change; that they are essentially historical in character; that particular forms of society are not eternal but come into being, develop and eventually perish and give way to other forms. And yet, in the non-Marxist social sciences, it is standard to treat societies, or institutions of society, abstractly and unhistorically. It is standard to consider them statically and not dynamically; merely as they are, and not in their necessary process of becoming, development and decay.

A dialectical process of development characterizes not only the human world, but also all natural phenomena. This is perhaps not so evident because the metaphysical approach is very influential in our thinking about natural processes. Thus we often conceive of mechanical processes as an endless repetition of the same basic law-like processes. For example, planetary motion, or the action of a piston or lever. However, to conceive of mechanical processes in this way is to conceive of them abstractly. No real, concrete mechanism is an eternal-ly repeating process. All real machines were created at a certain time and place and, as they operate, gradually wear out, decay and cease to be. Similarly, the real motion of the planets is not eternal. The solar system was formed at a particular stage in the evolution of the universe, has gone through a process of change and development, and is destined eventually to perish.

The metaphysical conception of mechanism sees it as abstract and unchanging. Concrete mechanical things are not like this. Rather, what we are given in the metaphysical picture is an idealization and an abstraction. Wittgenstein is pointing to this metaphysical character of mechanics when he says:

We have the idea of a super-mechanism when we talk of logical necessity, e.g. physics tried as an ideal to reduce things to mechanisms or something hitting something else.

We say that people condemn a man to death and then we say the Law condemns him to death. ‘Although the Jury can pardon him the Law can’t.’ . . . The idea of something super-strict, something stricter than any Judge can be, super-rigidity . . .

Cf. a lever-fulcrum. The idea of a super-hardness. ‘The geometrical lever is harder than any lever can be. It can’t bend.’ Here you have a case of logical necessity. ‘Logic is a mechanism made of infinitely hard material. Logic cannot bend.’ . . . This is the way we arrive at a super-something.

(Lectures and Conversations, pp. 15–16)

There can be no doubt that such idealized and abstract pictures of mechanical processes have been extremely useful and important tools in the advance of science and of human
knowledge generally. Such an abstracting approach becomes false, however, when it is elevated into a philosophical system. Reality is then regarded as abstract, unchanging and 'super-rigid'—that is to say, metaphysically and not dialectically. Again we see that dialectics is a method of seeing things as concrete.

It is often claimed that mathematical, logical and conceptual truths are eternal and unchanging. But according to dialectical philosophy even this is not so: ideas have no separate, abstract, ideal and eternal existence. Logic, mathematics, philosophy and so on are not mere abstract ideas, but concrete thoughts developed by real historical men and women. Such ideas have consequently come into being at a certain time, and they too have undergone development and change.

Stated thus, this may appear trite and obvious, but nevertheless it is implicitly denied in one way or another by most contemporary philosophers. For example, it is an almost universal doctrine among contemporary philosophers that philosophy is a conceptual and not an empirical study; and conceptual truths are regarded as having a timeless and eternal validity. It is rare indeed to find philosophy treated as a form of knowledge of concrete reality, produced by concrete individual philosophers living in and responding to specific social and historical conditions.\(^3\)

So far, then, I have tried to show how dialectical philosophy seeks to understand things concretely, and how it thus regards things as essentially interrelated and essentially in a process of motion and change. Engels says just this when he writes 'Dialectics... comprehends things and their representations in their essential connection, concatenation, motion, origin and ending.' (Anti-Dühring, p. 36). This is the purpose of dialectical philosophy and this is what it means when it says that everything is contradictory. For contradiction is at the root of both the identity and relationships of things, and of their development.

All concrete things are contradictory. There are tensions and conflicts within all things and in the relations between things. This is the law of contradiction, which is the most universal expression of the philosophy of dialectics and also the least well understood. It is important therefore to be clear about the meaning of the dialectical concept of contradiction. In particular, it is vital to understand that the dialectical concept of contradiction is not the same as the concept of contradiction in traditional formal logic.

The dialectical contradiction is a concret\(e\) contradiction: it is a contradiction which exists not just between ideas or propositions, but in things. When dialectical thinkers talk about contradictions they are referring to conflicts of opposing forces or tendencies in things. This is the most important part of the meaning of 'contradiction' in dialectical thought. We can come to a better understanding of this view by again contrasting it with the metaphysical perspective.

According to the metaphysical outlook, as we have seen, things are regarded as self-contained, positive existents, indifferent to other things. All things, in Hume's words, are 'loose and separate'; or, as Hegel puts it, according to this view, 'The different diverse things are each individually what they are, and unaffected by the relation in which they stand to each other. The relation is therefore external to them' (Enc. Logic, sec. 117, p. 216). Such a picture of things is abstract and untrue according to dialectic. Concrete reality is not a mere diversity of indifferent and externally related things—it is not a mere 'totality of facts'.\(^4\) For as well as recognizing the positive existence of things, we must also see in things the forces opposing and negating them which lead to development and change. Concrete things are not just related to each other, they are in a constant process of conflict and interaction, which is at the basis of all movement and change. Dialectical reason, says Hegel:

sharpens, so to say, they blunt difference of diverse terms, the mere manifoldness of pictorial [i.e. metaphysical] thinking, into essential difference, into opposition. Only when the manifold terms have been driven to the
point of contradiction do they become active and lively towards each other, receiving in contradiction the negativity which is the inherent pulsation of self-movement and vitality.

(Science of Logic, p. 442)

It is this contradiction and negativity which must be recognized in order to comprehend things in their movement. ‘Contradiction is the root of all movement and vitality; it is only in so far as something has a contradiction within it that it moves, has an urge and activity’ (Science of Logic, p. 439).

The reason for talking of ‘contradiction’ here is twofold: (1) to stress that concrete things are not indifferent to one another, but rather in interaction and conflict with each other. This is the very basis of the determinateness of concrete things, as is recognized in Spinoza’s saying, *omnis determinatio est negatio* (all determination is negation). A thing is determinate and has its own identity only by maintaining itself distinct from other things, by opposing other things. All determinate and concrete things are in opposition to other things. (2) The concept of contradiction is required in order to stress that such concrete opposition is not external and accidental to things, but rather essential and necessary: it is internal to things and a part of their nature. Contradiction is not mere accidental conflict, but essential opposition, opposition within a unity. The dialectical concept of contradiction is that of a concrete unity of opposites.

Some illustrations may help to make these ideas clearer. Marx, as is well known, analyses the relation between the classes of capitalist society as a contradictory one. The proletariat and the bourgeoisie are essentially related: both are created by capitalist conditions of production, and neither could have come into existence without the other. Furthermore, they arise together as mutually antagonistic classes. The conflict between them is not external to their natures and accidental. Neither the proletariat nor the bourgeoisie can be properly understood unless they are considered as the contradictory aspects of a single totality. It is not a matter of one self-contained class in external and merely contingent relation to another. Marx’s whole understanding of capitalism, and of history generally, is based on the view that class struggle is necessary and essential to society and the motive force of history.

The law of contradiction, however, applies to all things and not just to society. Let us return to the example of mechanical motion. The basic concept of Newtonian mechanics is that of force; and Newton’s theory of universal gravitation maintains that all bodies attract all other bodies with a force which varies with the masses of the bodies involved and with their distances apart. That is to say, everything in a mechanical system is in necessary relation and interaction with every other thing. Furthermore, no force can operate in a void: a force must operate on something. And in order to operate on something, it must meet with some resistance, in the form of an opposing force. Action implies reaction. A force in and of itself is an unreal abstraction. Thus any real mechanical system is to be understood as the action and interaction of opposing forces. This is true whether the result of those forces is an equilibrium (as studied in statics) or motion (as studied in dynamics). Thus, for example, planetary motion is the result of the interaction of the opposing forces of, on the one hand, the force of gravitational attraction between the planet and the sun (the centripetal force), and on the other hand, the inertial force of their motion (the centrifugal force).

Such examples could be multiplied indefinitely, for, as Hegel says:

There is absolutely nothing whatever in which we cannot and must not point to contradictions or opposite attributes; and the abstraction made by understanding therefore means a forcible insistence on a single aspect, and a real effort to obscure and remove all consciousness of the other attribute which is involved.

(Enc. Logic, sec. 89, p. 169)

II

So far I have tried to explain the philosophy of dialectic and the idea, which is basic to it, that there are contradictions in
things. Now it is time to consider some of the criticisms that are commonly brought against it. These criticisms have been remarkably constant and we find them repeated in essentially the same terms time and again. Indeed, they all reduce in the end to the reiteration of the formal logical principle of non-contradiction® and a dogmatic insistence that formal logic provides the sole valid principles of reasoning. This refusal to recognize any valid methods of thought other than deduction and formal logic is characteristic of metaphysics. What we find in these criticisms is the assertion of the metaphysical viewpoint.

Here is Dühring’s version, as quoted by Engels: ‘Contradiction is a category which can only appertain to a combination of thoughts, but not to reality. There are no contradictions in things, or to put it another way, contradiction accepted as reality is itself the apex of absurdity’ (Anti-Dühring, p. 164). The dialectical idea of contradiction in reality is thus regarded as absurd and impossible because it violates the ‘law of non-contradiction’. According to Popper, another such critic, ‘This law says that no self-contradictory proposition, or pair of self-contradictory propositions, can be true, that is, can correspond to the facts. In other words, the law implies that a contradiction can never occur within the facts, that facts can never contradict’ (‘What is Dialectic?’, Mind, 1940, p. 419). So when dialectical philosophy maintains that there are contradictions in things, it is dismissed as being muddled and confused. Hegel and the Marxists are accused of making the most elementary logical blunders. Dialectic is caricatured as the mere acceptance of formal contradiction and it is rejected as the quintessence of absurdity and irrationality.

Popper, for example, tells us that Hegel ‘simply said that contradictions do not matter’ (ibid. p. 416). This is a travesty, even if a common one; what Hegel actually says is as follows. ‘Whatever exists is concrete, with difference and opposition in itself’. . . . Contradiction is the very moving principle of the world; and it is ridiculous to say that contradiction is unthinkable. The only thing correct in that statement is that contradiction is not the end of the matter, but cancels itself (Enc. Logic, sec. 119Z, p. 223). In other words, according to dialectics, contradiction is indeed repugnant to reality and, just because of that, the contradictions in things lead to their development and change.

But, of course, when it is said by the critics of dialectic that contradictions are unacceptable, more than this is meant. The result of attempting to express a contradiction is supposed to be an absolutely self-annulling proposition, which implies anything and everything and thus asserts nothing. To quote Popper again, ‘From two contradictory premisses, we can logically deduce anything and its negation as well. We therefore convey with such a contradictory theory—nothing. A theory which involves a contradiction is entirely useless, because it does not convey any sort of information’ (art. cit., p. 410). Dialectical philosophy is supposed to be just such a theory.

In order to see why it is not, it is vital to understand that there is a distinction between formal contradiction and dialectical contradiction. What critics such as Popper describe is formal contradiction (as defined by the formal logical law of non-contradiction), which is indeed self-annulling. The formal contradiction represents mere formal impossibility. Its result is mere nothingness. In reasoning according to formal principles, to demonstrate that a proposition or theory is self-contradictory is to demonstrate its failure and its nothingness.® Or, if you prefer, the result of formal contradiction is mere assertion, the assertion of anything and everything, an absolutely indeterminate assertion. Thus a formal contradiction is an indeterminate and abstract assertion; and, as Hegel shows at the very beginning of his Logic, whatever has only abstract and indeterminate being is pure nothingness.

Dialectical contradiction is not of this kind, but it is a contradiction none the less. The dialectical contradiction is a concrete contradiction; it is a feature of concrete and
determinate things. It takes the form of a concrete unity or conjunction of incompatible aspects. Real contradictions are repugnant to reality and therefore dissolve themselves. But, unlike with the abstract contradictions of formal logic, the outcome, the resolution of a concrete contradiction, is not a mere nothingness, a mere indeterminacy. The outcome of a concrete contradiction, the outcome of a real clashing of opposites, is a result, something determinate, a new thing, which is equally contradictory and hence equally subject to change and eventual dissolution.

The concrete contradictions in things thus lead to their dissolution and negation; but this negation is not the abstract and absolute negation of formal logic, it is rather a dialectical and concrete negation, which Hegel calls 'determinate negation'. The metaphysical approach, he says:

always sees in the result [of contradiction] pure nothingness, and abstracts from the fact that this nothing is determinate, is the nothing of that out of which it comes as a result. Nothing, however, is only, in fact, the true result, when taken as the nothing of what it comes from; it is thus a determinate nothing, and has a content. . . . When once . . . the result is apprehended, as it truly is, as determinate negation, a new form has thereby immediately arisen.

(Phenomenology of Mind, B, p. 137; M, p. 51)

The concept of determinate negation is central to dialectics, but apparently unknown to those critics who can conceive of no other sort of contradiction than formal contradiction. The result of contradictions, conflicts in things, is indeed that they are disrupted, negated and reduced to nothingness. But this nothingness is not the abstract and simple nothingness or absurdity which results from formal contradiction. It is a concrete nothingness, the nothingness or negation of something determinate, a concrete result. 'The negative which emerges as a result of dialectic, is, because a result, at the same time the positive: it contains what it results from, absorbed into itself, and made part of its own nature' (Enc. Logic, sec. 81Z p. 152).

This process, by which a concrete contradiction in things results in a determinate negation of them, Hegel calls aufheben, which in philosophical contexts is variously translated as 'to sublate', 'to overcome', 'to supersede', 'to transcend' and so on. However, there seems to be no English equivalent which captures the contradorneriness of its meanings in ordinary language, which Hegel explains as follows. "To sublate" (aufheben) has a twofold meaning in the language: on the one hand it means to preserve, to maintain, and equally it also means to put an end to... Thus what is sublated is at the same time preserved' (Science of Logic, p. 107).

For example, to say that capitalism is contradictory does not mean that it is impossible and unreal, but rather that it is an essentially dynamic social form, and that it is ultimately destined to perish and be negated in a new social form, socialism, which will emerge from it as its result. Socialism is, according to Marx, the historical outcome of the contradictions of capitalism and the determinate negation of capitalism. Since socialism develops out of capitalism, it is not a mere abstract negation, but a concrete result which necessarily must base itself upon the positive achievements of capitalism and which preserves also, at least initially, many of the negative ones too. Marx, writing in the Critique of the Gotha Programme of the initial period of socialism, says:

What we have to deal with here is a communist society, not as it has developed on its own foundations, but on the contrary, just as it emerges from capitalist society; which is thus in every respect, economically, morally and intellectually, still stamped with the birthmarks of the old society from whose womb it emerges.

(Selected Works, Vol. II, p. 23)

Marx’s account of socialism, as well as capitalism, is thoroughly concrete and dialectical, and an excellent example and proof of the power of dialectical thought: it recognises that socialism will be a contradictory and hence developing stage of history, a transitional stage ‘between capitalism and
contradiction on to Marx and dialectical materialism. Marxism is revised. When it talks of ‘contradictions’ in things, so it is said, it does not really mean this. The language of ‘contradiction’ is a metaphorical and confused Hegelian extravagance: what is meant is simply that things are in a state of conflict and opposition, and such conflict has nothing to do with contradiction.

Again Dühring puts it well:

The antagonism of forces measured against each other and moving in opposite directions is in fact the basic form of all actions in the life of the world and its creatures. But this opposition of the directions taken by the forces of elements and individuals does not in the least degree coincide with the idea of absurd contradiction.

(Quoted in Engels, Anti-Dühring, p. 164)

And Dühring has been followed by a whole line of philosophers who seek to deny the dialectical concept of contradictions in things and replace it by the idea of non-contradictory ‘conflict’, ‘antagonism’ or ‘opposition’. Colletti is the latest to do so. In a recent article, he seeks to distinguish two types of opposition.

‘Real opposition’ (or ‘contrariety’ of incompatible opposites) is an opposition ‘without contradiction’. It does not violate the principles of identity and (non-) contradiction, and hence is compatible with formal logic. The second form of opposition, on the contrary, is ‘contradiction’ and gives rise to a dialectical opposition.

(‘Marxism and the Dialectic’, p. 3)

He then goes on to deny that dialectical philosophy can be either materialistic or scientific, on the basis of the following, by now familiar, assertion, ‘The fundamental principle of materialism and of science... is the principle of non-contradiction. Reality cannot contain dialectical contradictions but only real oppositions, conflicts between forces, relations of contrariety. The later are... non-contradictory oppositions, and not dialectical contradictions’ (ibid. p. 29).

communism’. And this recognition is not the result of a priori or metaphysical speculation, but is based upon the lessons of the fullest possible historical experience and understanding, as Lenin emphasizes throughout State and Revolution, and in the following characteristic passage:

The question of the future development of future communism [can] be dealt with on the basis of the fact[s] that it has its origin in capitalism, that it is the result of the action of a social force to which capitalism gave birth. There is no trace of an attempt on Marx’s part to make up a utopia, to indulge in idle guess-work about what cannot be known. Marx bases [his] conclusion[s] on an analysis of the role played by the proletariat in modern capitalist society, on the data concerning the development of this society, and on the irreconcilability of the antagonistic interests of the proletariat and the bourgeoisie.

(pp. 324–5)
This raises the question: why do dialectical philosophers insist on speaking of ‘contradictions’? Why don’t they, instead, talk of ‘conflicts’ and ‘oppositions’?—After all, even as they themselves explain it, dialectical contradiction is a matter of the conflict between the opposed aspects of things? In order to understand why they nevertheless insist on the language of ‘contradiction’, it is crucial to see that dialectical contradiction is more than mere conflict and opposition: it is essential opposition; conflict within a unity; internal conflict—not mere external and accidental conflict. The dialectical law of contradiction asserts that conflict and opposition are necessary, essential and internal to things; whereas the point of arguing that only conflicts exist in nature is precisely to deny the necessity of these conflicts.

Thus, for example, Colletti characterizes ‘non-contradictory opposition’ in the following terms. “The formula that expresses it is ‘A and B’. Each of the opposites is real and positive. Each subsists for itself. . . . To be itself, each has no need to be referred to the other” (ibid. p. 6). In this formula A is merely different from B. We are back to Bishop Butler: everything is what it is. . . A is A and B is B. They may be opposed, but not necessarily. Thus the world is portrayed by Colletti, in metaphysical fashion, as an indifferent diversity of merely positive things: A, B, etc. As we have seen, however, things which are merely positive, which merely are what they are, are abstract and dead. Nothing concrete and real is merely positive. Everything is contradictory and contains negative as well as positive aspects within it. The dialectical notion of contradiction is that such conflicts between opposed aspects are necessary and essential.

The only correct formula to express this is ‘A and not-A’, because only in this way can it be made clear that the conflicts to which dialectical philosophy refers are inherent and within a unity. The formula ‘A and not-A’ is the formula of contradiction: that is to say, here we really are talking about contradictions. Although again, of course, we must be careful to distinguish dialectical from formal contradiction;

and we must be aware that when a proposition of the form ‘A and not-A’ is asserted in a dialectical context it is concrete and dialectical, and not merely formal and abstract, negation and contradiction that are meant. Not all statements in the form of a contradiction (‘A and not-A’) state merely formal contradictions; and because of this it is possible to express meaningful ideas in the form of a contradiction (as the histories of science, mathematics, philosophy, etc., show). The arguments that things are in conflict and not contradiction also appears in other forms. For example, it is said that dialectic has nothing to do with logic, and that dialectical philosophy is confused in ascribing logical properties, such as contradictions, negations and necessities, to nature. These can exist only among thoughts. Then follows the attempt to rewrite the philosophy of dialectics, ridding it of the notions of contradiction, necessity and so on. Here is Popper’s version:

What dialectic is—dialectic in the sense in which we can attach a clear meaning to [it]—can be described in the following manner. Dialectic . . . maintains that certain developments, or certain historical processes, occur in a certain typical way. It is, therefore, an empirical descriptive theory, comparable, for instance, with a theory which maintains that most living organisms increase their size during some stage of their development, then remain constant, and lastly decrease until they die . . . Like such theories, dialectic is not applicable without exceptions—as long as we are careful not to force the dialectical interpretation. Like those theories, dialectic is rather vague. And like those theories, dialectic has nothing particular to do with logic.

(‘What is Dialectic?’, pp. 411–2)

The effect of such revisions of the philosophy of dialectic is strikingly illustrated here. A clear and strong philosophical doctrine is rendered into a banal and ludicrous commonplace.

The philosophy of dialectic does claim to provide a logic. It says not just that things generally and for the most part are related to and in conflict with other things, but that this is the essential and necessary character of concrete things. Dialectical philosophy is a logic in the sense that it describes the necessary laws of things at the most general level, and thus
gives a method of thinking about the world which is of universal application. It is a logic in the sense that it specifies the laws of thought which must be adhered to if reality is to be grasped concretely.

Dialectical logic is not, however, a merely formal logic. It is a logic of the concrete—a logic of content. It is an attempt to specify the logic of reality. Mao writes, 'The law of contradiction in things, that is, the law of the unity of opposites, is the fundamental law of nature and of society and therefore also the fundamental law of thought' ('On Contradiction', p. 71). Dialectic has, therefore, an empirical and descriptive content; for it attempts to describe the behaviour of things in their most universal and general aspects.

However, dialectical philosophy is not a mere empirical generalization in Popper's sense: it is not an empirical as opposed to a logical theory. It is a logical theory in the sense that it puts forward the law of contradiction as a logical law: as a universally valid principle which describes the necessary and essential character of concrete reality.

To talk of necessity in nature and of logical relations between things at first seems outrageous to anyone brought up in the atmosphere of contemporary British thought. For at present there is no philosophical theory more widely accepted or more celebrated than Hume's view that there are no necessary connections between things. He writes, 'All events seem entirely loose and separate. One event follows another, but we never can observe any tie between them. They seem conjoined, but never connected' ('Enquiry Concerning Human Understanding', p. 85). This doctrine is not the bland common sense it is portrayed to be by many contemporary philosophers. On the contrary, as Hume himself was well aware, it is a radical scepticism that contradicts the fundamental aim of science, which is to discover the causes of things, to find out why things must happen as they do; in other words, to know the necessity in things. It is vital to see that causality is the notion of necessary connection in things. If $A$ causes $B$, then

$B$ must happen given $A$. For example, the law of gravity states that an unsupported object must fall to the ground. It cannot do otherwise. And furthermore, this law specifies how its rate of fall is necessarily dependent on the masses of the bodies involved and the distance between them. To say that there is necessity in nature is to say that things develop and change according to laws, and this is a fundamental presupposition of all science, including, of course, social science. When Marx says that the interests of the proletariat and the bourgeoisie are in contradiction in capitalist society, he means that this class struggle is necessary to capitalism; that is, that it is a law of capitalism. So far from being an abomination to science, as the critics state, it is the concept of contradiction, and the attempt to determine the necessary and essential features and forces of bourgeois society, which give Marxism its scientific character.

To say that there is necessity in nature is not necessarily to say that this necessity can be known a priori. The particular sciences seek to discover the necessities in things—the laws of nature and of society—on the basis of experience and experiment, and not a priori. Dialectic, however, just because it claims to be a logical doctrine, is frequently accused of ascribing necessity to things in an a priori fashion. That this is true of Hegel cannot be doubted; indeed, he proclaims it as his aim, 'The whole progress of philosophizing in every case, if it be methodical, that is to say a necessary progress, merely renders explicit what is implicit in a notion' ('Enc. Logic', sec. 88, p. 163). And in his system he attempts to deduce all the essential categories of reality, starting from the concept of mere abstract Being.

Dialectical materialism diverges from Hegelian dialectic at this point. Marx's dialectic is not an a priori deduction, but a summary of human knowledge. 'Nature is the proof of dialectics' ('Anti-Dühring', p. 36) according to Engels. Colletti, Popper and company do not understand this. Their constant refrain is that dialectics is an a priori dogma. Colletti, for example, writes:
For dialectical materialism, contradiction is a precondition of any possible reality. Its cardinal principle is the series of propositions enunciated by Hegel... ‘All things are contradictory in themselves’ [etc.]... From these premises, dialectical materialism deduces... that ‘reality’ and ‘dialectical contradiction’ are the same thing... In a word: from the perspective of dialectical materialism, one can maintain with axiomatic certainty and prior to any analysis of one’s own, that within every object in the universe there must be inner contradictions.

(‘Marxism and the Dialectic’, p. 26)

No doubt dialectical materialism can be used as a set of dogmatic principles from which to deduce things. But Marxists have been at pains to stress that dialectical materialism is not a universal formula which may be applied to generate significant conclusions *a priori*. Marx, for instance, contrasting his own use of the dialectical method with that of Proudhon, says of the latter, ‘As a philosopher who has a magic formula at his elbows, he thought he could dispense with going into purely economic details’ (*Poverty of Philosophy*, p. 110). And Mao makes this point in the following words:

We study Marxism-Leninism not for display, nor because there is any mystery about it, but solely because it is the science which leads the revolutionary cause of the proletariat to victory. Even now there are not a few people who still regard the odd quotation from Marxist-Leninist works as a ready-made panacea which, once acquired, can easily cure all maladies... It is precisely such ignorant people who take Marxism-Leninism as a religious dogma. To them we should say bluntly, ‘Your dogma is worthless’.

(‘Rectify the Party’s style of Work’, p. 219)

And, even more bluntly, he has said, ‘Dogma is less useful than cowdung’.

Correctly understood, dialectical materialism is not a dogma. Indeed, it is rather Popper, Colletti and other such critics of dialectic who show themselves to be dogmatists by the terms of their criticisms. For they merely assert their philosophy, embodied in the principles of formal logic, and when confronted with the dialectical concept of contradiction, reject it as ‘absurd’ and ‘irrational’ for failing to conform to formal logic.

Philosophy and logic can never replace the need for a detailed investigation of the concrete and particular conditions under study. They can never replace the need for the fullest possible practical experience; and no philosophy makes this point more forcibly than dialectical materialism. According to it, philosophy is not a body of merely conceptual, logical or *a priori* truths. Philosophy has a twofold character: it *summarizes*, at the most general level, the results of human knowledge and experience; and it functions as a *guide* to further thought and action.

There is no question here of using the principles of dialectics as ‘axioms’ from which to ‘deduce’ any concrete results. If anything, the process works the other way around, and philosophies are based upon results in the particular sciences. Such is the dialectical materialist account of the nature and history of philosophy. In his *Ludwig Feuerbach*, Engels brilliantly shows how the development of philosophy is closely linked to the development of science. In describing the history of materialism, for example, he writes:

The materialism of the last century was predominantly mechanical, because at that time, of all natural sciences, only mechanics... had come to a definite close. Chemistry at that time existed only in its infantile, phlogistic form. Biology still lay in swaddling clothes; vegetable and animal organisms had been only roughly examined and were explained as the results of purely mechanical causes... This exclusive application of the standards of mechanics to processes of a chemical and organic nature—in which processes the laws of mechanics are, indeed, also valid, but are pushed into the background by other higher laws—constitutes the first specific but at that time inevitable limitation of classical French materialism.

The second specific limitation of this materialism lay in its inability to comprehend the universe as a process, as matter undergoing uninterrupted historical development. This was in accordance with the level of the natural science of that time, and with the metaphysical, that is anti-dialectical, manner of philosophizing associated with it.

(*Ludwig Feuerbach*, pp. 373-4)
These same limitations persisted into the nineteenth century and, argues Engels, typify Feuerbach’s materialism; and, indeed, they are familiar still today. Dialectical materialism, by contrast, bases itself upon, and summarizes, the results not only of the natural sciences but also of the social sciences, and in particular, of course, of Marxism. For this reason it is a higher and more developed form of materialism than that based purely on the natural sciences and the metaphysical outlook.

Dialectical materialism, then, is no set of axioms but, as Engels says, ‘the science of the general laws of motion and development of nature, human society, and thought’ (*Anti-Dühring*, p. 194). It is not a dogma, but a vital and useful theory. It cannot be known *a priori*—rather it is a summary of human practical knowledge. Nor is it a collection of principles from which results can be deduced—it is a guide to thought and action. It is an essential part of Marxism. ‘This materialist dialectic’, writes Engels (referring to both Marx and himself), ‘has been our best working tool and our sharpest weapon’ (*Ludwig Feuerbach*, p. 64). Lenin called it one of the ‘three component parts of Marxism’; and he recognized classical German philosophy—and particularly Hegel—as one of the three basic sources of Marx’s ideas. Indeed, Marx and Engels themselves repeatedly acknowledge their debt to Hegel.

Attempts to revise Marxism by rejecting the philosophy of dialectic, and the corresponding wish to write Hegel out of the history of Marxism, reject a central and vital aspect of Marxism. The philosophy of dialectical materialism is dismissed as ‘absurd’ and ‘irrational’. But in the end it is not dialectic which is ‘absurd’ and ‘irrational’ but its critics. For all the metaphysical objections in the end amount only to a horror of contradiction and to a desire to keep the world free of contradiction at all costs. Thus, when such critics are at last forced to admit that there is opposition in things, they still refuse to recognize it is *essential, necessary* and therefore *inevitable* opposition—that is, they refuse to recognize it as contradiction—but hold to the view that such conflict, in Hegel’s words, ‘ranks in general as a contingency, a kind of abnormality and a passing paroxysm of sickness’ (*Science of Logic*, p. 440).

Dialectical materialism, by contrast, is a philosophy of struggle and of conflict. Nothing comes into being except through struggle; struggle is involved in the development of all things; and it is through struggle that things are negated and pass away. Conflict and contradiction are inevitable. Dialectical materialism does not regard struggle and contradiction with horror. Conflict for it is not merely nullifying. Struggle, and the negativity involved in it, are not merely destructive, but also productive. Struggle is a good thing, not a bad thing. Mao expresses this idea in the following passage:

Marxists should not be afraid of criticism from any quarter. Quite the contrary, they need to temper and develop themselves and win new positions in the teeth of criticism and in the storm and stress of struggle. Fighting against wrong ideas is like being vaccinated—a man develops greater immunity from disease as a result of vaccination. Plants raised in hot-houses are unlikely to be healthy.

(‘On the Correct Handling of Contradictions Among the People’, p. 117)

He has also said that Marxism can be summed up as the view that ‘rebellion is justified’.

To regard contradictions with horror and to refuse to recognize them is to condemn oneself to being, in Mao’s words, ‘handicapped and passive’ (*ibid.* p. 92) in the face of them. Indeed, the denial of contradiction is ultimately a philosophy of reconciliation and of acquiescence to things as they are. The denial of contradiction is the philosophical basis of revisionism; for to abandon Marx’s dialectic is to abandon the critical and revolutionary foundation of his thought, as Marx himself states in a famous passage from *Capital*, with which I shall end:

In its rational form [dialectic] is a scandal and abomination to bourgeoisdom and its doctrinaire professors because it includes in its comprehension and affirmative recognition of the existing state of things, at the
same time also, the recognition of the negation of that state, of its inevitable breaking up; because it regards every historically developed social form as in fluid movement, and therefore takes into account its transient nature not less than its momentary existence; because it lets nothing impose upon it, and is in its essence critical and revolutionary.

\textit{(Capital, Vol. I; Afterword to 2nd German Ed., p. 20).}

\section{ON THE HEGELIAN ORIGINS}

\textit{Richard Norman}

The aim of this essay, like that of Sayers' Essay I, is to give a general account of what is meant by 'dialectic'. At the same time it is intended to do so with a view to a specific problem. One of the things which is particularly confusing in many accounts of dialectic is that they seem to run together, under the heading of 'dialectic', a number of different ideas. Dialectic is said to be the view that 'everything is in a process of change', \textit{and} the view that 'everything is contradictory, \textit{and} the view that everything has to be understood in its context rather than in isolation, \textit{and} the view that concepts merge into one another, and so on. My own difficulties in understanding the philosophy of dialectic have consisted largely in trying to see how these different themes fit together. In this essay I shall attempt to show that, initially, we can best understand their unity by looking at the Hegelian origins of dialectic. Within Hegel's philosophy the various strands can be held together, but once we abandon his philosophical system we can no longer connect the different aspects of dialectic in the way that he does.

Marxist writers, and especially Engels, have recognized this up to a point, and have made correct and important criticisms of the Hegelian dialectic. Nevertheless I find unsatisfactory the way in which they have been described the relation between Marxist dialectic and Hegelian dialectic, and in the latter part of this essay I shall offer some criticisms of Engels's account.

\textbf{1 Conceptual Dialectic}

I begin, then, with Hegel—or rather, I begin with the philosophical background to Hegel, since one needs this in

\begin{enumerate}
\item \textbf{Conceptual Dialectic}
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order to understand the Hegelian version of dialectic. One of the basic problems of traditional philosophy has been the problem of opposites, that is, the problem of the relation between certain very fundamental opposed concepts such as mind and matter, essence and appearance, universal and particular, society and individual, freedom and necessity, and so on. We can identify two characteristic ways of dealing with this problem, which I will call reduction and dualism. Reductionism is the philosophy of 'nothing but'. 'Mind', on this view, is 'nothing but' a certain kind of behaviour of matter, for example a certain kind of observable human behaviour, or perhaps certain kinds of physical processes in the brain and central nervous system. 'Universals', from a reductionist point of view, are 'nothing but' ideas abstracted from many particulars; for example, the universal property of 'redness' is simply an idea formed by the human mind as a result of abstracting from many particular red things which have been observed. Again, so-called 'free' action is 'nothing but' a species of necessity, a certain kind of causally determined behaviour, and the only difference between 'free' and 'unfree' behaviour is in the kinds of causes which have produced it. I hope that these examples sufficiently indicate what I mean by reductionism. I use it as a label to refer not to any specific philosophy, but to a general philosophical approach. No one historical philosopher exactly fits the picture, but typical representatives of this approach would be the Greek atomists and Lucretius, the British empiricists, and the philosophers of the French Enlightenment.

Contrast this approach with that of dualism. Philosophers of a dualist tendency recognize that, in these pairs of opposed concepts, one term cannot be reduced to the other; they therefore make a complete separation between the opposed terms, and apply them to two different worlds, to two separate spheres of reality. The philosophy of Plato is the classic instance of this approach. Plato starts from the opposition of 'particular' and 'universal', and takes these terms to refer to two distinct kinds of entity, which he assigns to two different worlds. On the one hand there is the material world, the world of physical particulars, and on the other hand there is the world of universal ideas. The one is the world of becoming, of change and decay, whereas the other is the world of true being, an eternal and unchanging world, outside space and time. We are acquainted with the former world through sense-perception, but all true knowledge is of the unchanging universal ideas. The human body belongs to the world of physical particulars, but the soul, though imprisoned within the body, is more akin to the world of ideas. Thus the original opposition of 'particulars' and 'universals' provides Plato with a complete dualist metaphysics in terms of which he can effect the separation of the other fundamental opposites.¹

Plato's philosophy is but one example of a dualist approach. As other instances we could cite Descartes, or Kant, or Schopenhauer. It is clear also that a great deal of religious thought is essentially dualist, positing a dichotomy between, say, the world of the flesh and the world of the spirit; certainly this dichotomy is an important element in Christian thought.

I have provided this sketch of reductionism and dualism in order to suggest that Hegel's dialectic can usefully be seen as a response to these two philosophical traditions. As a first step towards understanding the nature of his response, let us consider the example of 'universals' and 'particulars'. Hegel discusses this in the first section of his *Phenomenology of Mind*, the section entitled 'Sense-certainty'. By 'sense-certainty' Hegel means sensory experience as characterized by reductionist and empiricist philosophers, as a direct and immediate sensory acquaintance with particulars. Sense-certainty would consist in directly seeing or hearing some one particular entity, considered apart from any relation to other entities of the same kind or of a different kind. Such experience is regarded by empiricist philosophers as the basis of all our knowledge, the rest of knowledge being built up by the accumulating of sense-experiences, and by comparing them with one another and abstracting universal ideas from them. Hegel's response to the empiricist account is to say that
there cannot be such experiences unless we presuppose also the possession of universal concepts. One cannot be directly acquainted with sensory particulars unless one is also able to apply universal concepts to the objects of such experience. There are several stages in Hegel's account here, but the most telling point which can be extracted from it seems to me to be the following. Suppose that I take myself to be directly acquainted, in sense-perception, with some one particular. How do I identify, either for myself or for others, which particular entity is the object of my awareness? Suppose that I point it out—'What I am aware of is this'; or suppose that I don't physically point it out but, as it were, mentally focus on it and say to myself 'This is what I mean'. Does the word 'this', or does my pointing or my mental focusing, successfully serve to identify a particular? It does not in fact identify anything. My pointing, for example, could indicate indiscriminately this building, this room, this wall, this point on the wall, this colour, and so on. Only by characterizing what I am pointing to in one of these ways can I identify which particular I mean. That is to say, it is only by using a universal term such as 'wall', or 'colour', or whatever, that I can identify a particular as an object of my acquaintance.

Hegel, then, is showing that one can have sensory acquaintance with particulars only in so far as the particular is also a universal and is characterized by means of some universal concept, that is, only in so far as it is connected with other particulars of the same kind and contrasted with particulars of other kinds. Now notice what Hegel is doing here. He is not replacing reductionism with dualism. He is not saying that we have acquaintance with particulars and also have knowledge of universals. He is saying that we have acquaintance with particulars only in so far as this is at the same time a knowledge of universals. And unlike Plato he would add, I think, that these universals can themselves exist only in so far as they are embodied in particulars. Thus, in place of both the reduction of universals to particulars and the separation of universals from particulars, he is asserting the mutual

interdependence of particular and universal. He speaks of this also as the identity of opposites, meaning thereby not that the distinction between the opposed concepts disappears, but rather that, though the concepts are distinct, the applicability of the one is a necessary precondition for the applicability of the other, and vice versa.

Here, then, we have a first indication of what Hegel means by 'dialectic'. It is the breaking down of the opposition between concepts which have traditionally been treated by philosophers as polar opposites. It is the attempt to demonstrate the interconnection of opposites. I have taken the example of particular and universal from the Phenomenology of Mind, but Hegel's systematic treatment of the philosophical opposites is in the two versions of his Logic. He there discusses such pairs of concepts as: being and nothing, quantity and quality, one and many, essence and appearance, identity and difference, form and matter, form and content, thing and property, inner and outer, freedom and necessity. Each pair can be treated, and has been treated by philosophers, in the manner of reductionism and in the manner of dualism. And in each case Hegel is concerned to show how either term depends for its intelligibility upon its necessary connection with the other.

In the light of these examples, we can now explain some of the vocabulary with which Hegel typically refers to the dialectic—and first, the word 'contradiction'. The relevance of this should now be apparent. To discover that one and the same thing is both a particular and a universal is, for Hegel, to recognize the existence of contradiction. Hegel sometimes seems to imply that to recognize the existence of contradictions is, quite literally, to accept that logically self-contradictory propositions can be true. He claims, at any rate, that there can be, and are, logical contradictions in reality. This, I think, is unnecessary and misleading. Let me take an example. Hegel refers with approval to the paradoxes formulated by the Greek philosopher Zeno, who claimed to have shown that motion is impossible because it is self-
contradictory. Perhaps the simplest of Zeno's paradoxes is that of the flying arrow. If we consider a flying arrow at any moment of its flight, it must, at that particular moment, be in one particular location. But if a thing is located in just one position in space, it is at rest. Therefore, at every moment of its flight, the flying arrow is at rest. Zeno concludes that, since we have arrived at the contradiction that something which is moving is always at rest, we have shown motion to be impossible. Hegel's comment, reiterated by Marxists from Engels onwards, is that though motion does indeed involve a contradiction, this does not make it impossible, it merely confirms that there are contradictions in reality. Now to respond to Zeno's assertion of the self-contradictoriness of motion simply by saying 'Oh well, that's all right then', is to abandon rational argument altogether and to forfeit the possibility of understanding the real nature of motion. The appropriate response to Zeno's argument is to assume that, since he has arrived at this contradiction, there must be something wrong with the way in which he talks about motion, time and space. And indeed there is. Zeno's mistake is to suppose that we can understand time by seeing it as the sum of an infinite number of moments of time, and similarly to suppose that we can understand the change and movement of a thing by adding together an infinite number of states of the thing at particular moments. This is in fact impossible. We cannot construct change and motion out of static elements. We have to start from the fact of change, we have to start with the idea of motion over a period of time, and only then can we identify a particular moment within that period of time and enquire into the condition of the thing at that particular moment. And the more general point is this. We cannot just accept that motion is logically self-contradictory. If we do want to assert that what is in motion is also in some sense at rest, we cannot just stop there. We have to elaborate the assertion in such a way as to remove the logical contradiction. We have to find some way of distinguishing between the sense in which, or the respect in which, it is in motion and the sense in which (respect in which) it is at rest. Similarly with the other pairs of opposites. If every thing is both a universal and a particular, there must at any rate be some way in which we can distinguish between the respect in which it is a universal and the respect in which it is a particular; and so on. I therefore suggest that, Hegel's own assertions notwithstanding, we can best make sense of his notion of 'contradiction' if we take it to be something weaker than strict logical contradiction. The interconnection of opposites involves contradiction in this sense, that the two opposed terms can both be applied to one and the same entity, and the possibility of applying the one term depends upon the possibility of applying the other.

Another prominent element in Hegel's vocabulary for talking about dialectic is the stress on flux, change, movement, process, and so forth. What is meant by this? Consider again Hegel's philosophical method in the Phenomenology of Mind. I have said that he begins with an examination of 'sense-certainty'. 'Sense-certainty' provides the starting-point because it appears to be the simplest and most immediate form of experience. But when one examines this form of experience one is necessarily led beyond it; we have seen how, according to Hegel, acquaintance with particulars necessarily involves also knowledge of universals. Accordingly we now need to give an account of this 'knowledge of universals', considered as a new aspect of experience. Hegel calls it 'perception' in contrast to 'sense-certainty', and describes it as the experience of things in the world considered as the bearers of universal properties—for example the perception of a block of salt, considered not as an isolated particular but as possessing the universal properties of whiteness, cubic shape, pungent taste, etc. Hegel shows that when we examine 'perception' we are in turn led on to posit yet another new form of experience, and so on throughout the Phenomenology. We finally arrive at what Hegel calls 'absolute knowledge', and this is simply the completed system of all the forms of experience through which we have
passed. A similar development takes place in the *Logic*. We begin there with what is apparently the simplest concept, that of ‘being’. Hegel argues that this concept is necessarily connected with its opposite, ‘nothing’, and then claims that to recognize the interconnection between ‘being’ and ‘nothing’ is to employ the concept of ‘becoming’, since ‘becoming’ is a change from not-being to being and from being to not-being. Thus, starting from the concept of ‘being’, we are led on to the concept of ‘nothing’, then to that of ‘becoming’, from that in turn to another concept, and so on. The point is, then, that we cannot consider any of these concepts just by itself, in isolation. In coming to understand it, we are led to posit another concept, and then led on from this to a further concept. This is what Hegel means by saying that what we have to understand is, not static concepts, but a process, a constant change and transition from each concept to the next. Herein lies the essence of Hegel’s philosophical method—the fact that we can start with one concept and from it generate a complete sequence.

It is important to remember that when, in this context, Hegel emphasizes the fact of change and movement, he is not referring to a process of change in the literal sense. Hegel himself seems to be rather carried away by this vocabulary. Here are some typical remarks from the *Phenomenology*:

> We have to think pure flux, opposition within opposition itself, or contradiction. . . This. . . may be called the ultimate nature of life, the soul of the world, the universal life-blood, which courses everywhere, and whose flow is neither disturbed nor checked by any obstructing distinction, but is itself every distinction that arises, as well as that into which all distinctions are dissolved; pulsating within itself, but ever motionless, shaken to its depths, but still at rest. . . This absolute unrest of pure self-movement (is) such that whatever is determined in any way, e.g. as being, is really the opposite of this determinateness.

(B, pp. 206–9; M, pp. 99–101)

In passages such as this, Hegel’s metaphors take over. We need to remember therefore that they are metaphors. Hegel is describing a *logical* progression, the process of development of a philosophical system. When he says that, for example, the particular ‘becomes’ the universal, he of course does not mean that a particular tree or a particular house somehow turns into a Platonic universal. He means that in considering the tree as a particular we are necessarily led to recognize its character as a universal.

I want finally to mention a third element in the vocabulary which Hegel uses to describe dialectic, namely his stress on *system*. I have mentioned that the process of the *Phenomenology* culminates in ‘absolute knowledge’, and that this is equated with the system of all the possible forms of human experience which have been encountered in the course of the work. Similarly the *Logic* culminates in the ‘absolute idea’, this being the totality of all the basic concepts or categories by which reality is ordered. Since each form of experience encountered in the *Phenomenology*, and each concept in the *Logic*, is only a particular phase in the total process, it follows that each one is properly understood only when we understand its location within the completed system. The typically Hegelian terms which are employed to make this point are the terms ‘totality’ and ‘moments’. The ‘moments’ of a ‘totality’ are not simply the parts of a whole. The parts of a whole can each be known and understood separately, in isolation from one another, and the whole is simply the collection of the parts. The moments of a totality, on the other hand, can be known and understood only if we know the relation of each to all the rest, and it is this systematic structure of relations which constitutes the totality. Thus ‘system’ or ‘totality’, and ‘dialectical process’, are the same thing considered from a static and from a dynamic point of view.

The ideas which I have been outlining—the unity of opposed concepts, and the related ideas of ‘process’ and ‘system’—are what I take to be the heart of the Hegelian dialectic. They are not the whole of it, as I shall show in a moment. But they are its most characteristic aspect, and the
aspect with which we need to start. Notice that it takes the form of a conceptual dialectic. The dialectical process is the transition from one concept to its opposite, and the progression from one pair of concepts to another and thence to another, and so on to the completed system of concepts. Now in so far as Hegel’s dialectic is to be viewed as a conceptual dialectic, Engels and other Marxists tend to repudiate it (or at any rate to deny it any autonomous status). Engels says:

According to Hegel, dialectics is the self-development of the concept... going on from eternity, no one knows where, but at all events independently of any thinking human brain. This ideological perversion had to be done away with. We comprehended the concepts in our heads once more materialistically—as images of real things instead of regarding the real things as images of this or that stage of the absolute concept. Thus dialectics reduced itself to the science of the general laws of motion... Thereby the dialectic of concepts itself became merely the conscious reflex of the dialectical motion of the real world and thus the dialectic of Hegel was placed upon its head; or rather, turned off its head, on which it was standing, and placed upon its feet.

(Ludwig Feuerbach and the End of Classical German Philosophy, pp. 386–7)

So Engels distinguishes between a ‘dialectic of concepts’ and a ‘dialectic of the real world’ which can be known empirically, through the sciences. He regards Hegel’s version of the former as incompatible with materialism, and considers that as materialists we must abandon it and replace it with the latter.

This I believe to be a mistake. Engels is right to make the distinction between two kinds of dialectic, and the passage which I have quoted makes a legitimate and important criticism of Hegel, as I shall indicate presently. But Engels is, I think, wrong to suppose that a Hegelian conceptual dialectic is incompatible with materialism. This I shall now try to show.

I must first emphasize that, in saying that Hegel’s dialectic is a conceptual dialectic, I am not saying that it is about concepts as distinct from being about things in the material world. Such a view would be a regression to a Platonic dualism of the kind which I have mentioned previously. I do not accept this Platonic division between the material world and a separate world of concepts. I do, however, accept the traditional philosophical distinction between conceptual truths and empirical truths, and it is by reference to this distinction that I wish to describe Hegel’s dialectic as a conceptual dialectic. Consider a standard philosophical example of a conceptual truth: the statement ‘All bachelors are unmarried’. The truth of this assertion is not something which we have to discover empirically. We do not have to go round questioning all the bachelors we can find in order to determine whether or not they are married. We know that the statement is true simply in virtue of the connection between the concept ‘bachelor’ and the concept ‘unmarried’. Part of what we mean by the term ‘bachelor’ is ‘someone who is unmarried’. But this is not to say that the statement ‘All bachelors are unmarried’ is a statement about concepts as distinct from being about the real world. It is a truth about actual bachelors, in the real world—but it is true of them in virtue of the way in which the relevant concepts are used.

This is of course a much more trivial conceptual truth than any of those which make up the substance of Hegel’s philosophy. If it seems too trivial to bear the weight of the comparison, we could invoke another standard example, the statement ‘One and the same thing cannot at one and the same time be both red all over and green all over’. This again is not an empirical truth. It is true in virtue of the connections between concepts. The connections this time are more complex, involving more than a simple identity of meaning between two terms. Nevertheless the fact remains that the statement is true in virtue of the way we use colour concepts, that is, in virtue of the way we use the language of colours. And again, though this is what makes the statement true, the statement is not a truth about a separate realm of concepts but about actual coloured things in the real world.

Hegel’s ‘conceptual dialectic’ consists of conceptual truths in this sense. The Hegelian claim that all particulars are also
universals is not something to be discovered empirically. It is 
true in virtue of the relations between the concept 'particular' 
and the concept 'universal'. But it is a truth about all 
particular things in the real world, about particular trees, 
particular houses, etc. etc.; it asserts of them that they can be 
identified as particulars only in so far as they are also known as 
universals. And to say that it is true in virtue of the relations 
between concepts is to say that it is true in virtue of the way in 
which the relevant terms are used in the language (that is, 
used by human beings as physical beings engaged in the 
physical activities of speaking and writing). Thus the 
recognition of such conceptual truths is not incompatible 
with materialism.

This is indeed too negative a claim. More positively, I 
would say that any adequate philosophy within the general 
perspective of dialectical materialism would have to 
recognize and incorporate this conceptual dialectic. The 
classic Marxist expositions of dialectic invoke what are in fact 
examples of the conceptual dialectic, even if this is not 
properly recognized. Lenin, for example, in his 'On the 
Question of Dialectics', discusses the identity of universal 
and particular, and refers approvingly to Hegel's assertion of 
this identity. Again, we have seen that Engels, in the passage 
which I have just quoted, speaks of the need to formulate 
certain general scientific laws of dialectics, and when, 
elsewhere, he comes to state them, they turn out to be the law 
of the interpenetration of opposites, the law of the negation of 
the negation, and the law of the transformation of quantity 
into quality; but his attempt to present these as empirical, 
scientific laws seems to me to be entirely unsuccessful. They 
are all best understood as instances of the conceptual dialectic. 
To demonstrate this, however, and to identify the possible 
role of the conceptual dialectic within dialectical materialism, 
would require further argument, which I shall attempt to 
provide in Essay 5. For the time being I hope to have shown 
what this conceptual dialectic is, that it is compatible with a 
materialist philosophy, and that it is important in its own

right; and I have tried to give some indication of its import-
ance by counterposing it to the reductionist and dualist 
traditions in philosophy.

II Temporal-Empirical Dialectic: 
the Hegelian Version

This conceptual dialectic is not, however, the whole of 
dialectic, even in Hegel. I have said that when Hegel talks 
about dialectic as involving change and process, he does not 
normally mean change in the literal sense. Sometimes, how-
ever, he does mean that. He does so, for example, in the 
following passage:

We must not suppose that the recognition of (the) existence (of dialectic) 
is peculiarly confined to the philosopher. It would be truer to say that 
Dialectic gives expression to a law which is felt in all other grades of 
consciousness, and in general experience. Everything that surrounds us 
may be viewed as an instance of Dialectic. We are aware that everything 
finite, instead of being stable and ultimate, is rather changeable and 
transient.

(Enc. Logic, sec. 81)

And he goes on to instance such changes as the movement of 
the planets, and changes in the fortunes of an individual or of 
a state. We have therefore to ask why Hegel should suppose 
that there is any connection between literal material changes 
of this sort and the conceptual dialectic which I have been 
discussing.

The fact of change in the natural (non-human) world plays 
only a limited role in Hegel's philosophy. Though he does 
indeed emphasize the fact of natural change, his assertion of it 
tends mainly to take the form of a quasi-religious insistence 
on the transitoriness of finite things. He specifically denies 
that nature as a whole exhibits a development:

The changes that take place in Nature—how infinitely manifold soever they 
may be—exhibit only a perpetually self-repeating cycle; in nature there 
happens 'nothing new under the sun', and the multiform play of its 
phenomena so far induces a feeling of ennui; only in those changes which
take place in the region of Spirit does anything new arise.
(The Philosophy of History, p. 54)

This means, in particular, that Hegel rejects the idea of the evolution of natural species:

It is a completely empty thought to represent species as developing successively, one after the other, in time. Chronological difference has no interest whatever for thought. If it is only a question of enumerating the series of living species in order to show the mind how they are divided into classes, either by starting from the poorest and simplest terms, and rising to the more developed and richer in determinations and content, or by proceeding in the reverse fashion, this operation will always have a general interest. ... But it must not be imagined that such a dry series is made dynamic or philosophical, or more intelligible, or whatever you like to say, by representing the terms as producing each other. ... The land animal did not develop naturally out of the aquatic animal. ... (Philosophy of Nature, p. 206)

Given that, as we shall see, the Darwinian theory of evolution has been claimed as a vindication of dialectic, it is ironic that Hegel rejected Darwinism before the event.

Much more important than natural change, for Hegel's philosophy, is change in the human world, that is to say, human history. It is important in two main guises.

1. As the history of thought, and especially as the history of philosophy. Hegel sees the history of philosophy as the progressive elaboration of the complete philosophical system, with each historical philosophy providing a particular element in the system. Thus, in addition to the elaboration of the system in works such as the Phenomenology and the Logic, Hegel thinks that it can also be elaborated in another way by recapitulating the history of philosophical thought and retaining the contributions of each past philosophy.

This does, I think, offer a valuable way of looking at the history of philosophy. One often hears people expressing scepticism as to the value of studying philosophy on the grounds that, in the whole of its history, philosophy has made no progress; one philosopher refutes another, so that the history of philosophy takes on the appearance of a series of discarded theories, and nothing seems to have been achieved. Such scepticism ought not to be simply dismissed; it deserves an answer, and Hegel seems to me to have been the only philosopher to offer one. He claims that, even though no past philosophy can be accepted if it is treated as final and complete in itself, each such philosophy represents a positive principle which needs to be retained within a completed system of philosophy. Thus by identifying this positive principle and discovering how it is to be related to and reconciled with the positive elements of other apparently opposed philosophies we can make progress in the elaboration of a satisfactory philosophical system. Past philosophies may be untenable, but they are not wholly negative in significance. 9

Hegel would however want to say more than this. He would claim that the chronological progression from one past philosophy to another is also a logical progression, that it evinces a logical relationship between the content of the one philosophy and that of its successor. Past philosophies are not only to be treated as elements in a total philosophical system, but their temporal order is to provide the logical ordering and structure of the system. Hegel can then assert that the conceptual dialectic is also exhibited in the chronological process of development which constitutes the history of philosophy. 4 This is, I think, too strong a claim. Certainly any philosopher will be in some way or other responding to his predecessors, and consequently the temporal succession of philosophies can often also be seen as a logical development. The major philosophies of the seventeenth and eighteenth centuries, for example, can be viewed in this way, with the development of the rationalist tradition, the response of the empiricist tradition whose implications are progressively unfolded by Locke, Berkeley and Hume, and then the philosophy of Kant as a synthesis of the two tendencies. But to see the whole of the history of philosophy as a single logical development is to impose on it too neat a pattern, and one which does violence to the facts. There is, in the history of
philosophy, regression as well as progress, there are blind
alleys as well as positive advances.

2. I imagine that Hegel would not entirely disagree with
what I have just said; the difference is largely one of
emphasis. What is much more seriously questionable is
Hegel’s view of the history of social and political life. Again,
there is great value in his approach. Hegel recognizes that
social and political institutions require to be understood in
terms of their historical development, and that there are no
timeless truths about the necessary and inevitable structure of
human society. (I shall say more about this when I come to
consider the Marxist version of dialectic.) But here too the
trouble is that Hegel identifies the historical development of
social life with the logical progression of the conceptual
dialectic. Chronological change comes to be seen as simply a
manifestation of the conceptual dialectic. In the
Phenomenology, for example, Hegel divides history into three
epochs: (a) the ancient world, flourishing at its best in the
Greek city-states; (b) the feudal world, brought to an end by
the French Revolution; (c) the modern world which the
French Revolution inaugurates. But when Hegel sets out to
give an account of the relations between these three epochs
and the transitions from one to another, he appears to see
these as deriving from the logical relations between the
concepts ‘universal’ and ‘particular’. In the Greek city-states,
the individual is absorbed in the universal life of the
community, he is completely identified with the life of the
nation, and finds the substance of his own life in the social
substance. The feudal world is characterized by Hegel as the
‘Self-estranged World’, in which individuals exist only as
isolated particulars. In place of the previous all-embracing
social life, social relations now consist simply in ties between
particular individuals, such as the relations between lord and
vassal and between the feudal lords and the monarch.
Consequently the social world as a whole is experienced by
individuals as something external and alien, as the power of
the state and as the power of economic wealth; according to

Hegel this is the case both in the feudal world itself and in the
world of absolute monarchy to which it leads. The third
epoch is that of a world in which these opposed aspects are
synthesized; the individual once more finds himself at home
in the universal life of society, not however, as in the Greek
world, by being simply absorbed within it but rather by
rationally accepting it and identifying with it as a free and
particular individual. Thus the three epochs represent the
principles of ‘the universal’, ‘the particular’, and their
synthesis. And Hegel seems to suppose that it is because of the
logical relations between universal and particular that a
society which emphasizes one must necessarily pass into a
society which emphasizes the other, and this in turn into a
society which synthesizes the two. For Hegel, it is just because
the Greek world represents the universal to the exclusion of the
particular that it must change into the self-estranged
world, and it is just because the self-estranged world
represents the particular to the exclusion of the universal that
it must pass into the modern world.

Why should Hegel have held such a strikingly implausible
view of historical change? The answer lies in his
philosophical idealism, and in fact in the worst and least
plausible aspect of his idealism, that aspect in which it becomes
a kind of pantheism. Hegel thinks that the structure of reason
which he is unfolding in works such as the Logic is not just the
structure of human thought. Reason is itself an independent
and autonomous force, a force at work in the world. It is the
creative force behind the natural world, and it is the
propelling force of history. This ‘reason’ is in fact to be
identified with God. Human history is the unfolding of
reason, it is the self-revelation of God in the world. This is
why he is able to identify the conceptual dialectic and the
temporal dialectic.

It is also why he is wrong to do so. If it is his idealism that
enables him to identify the two, then in rejecting his idealism,
as indeed we must, we have to recognize a distinction between
the two kinds of dialectic. We have to treat them as independ-
ent of one another. We have to recognize that the fact of literal change in the world, and the form it takes, cannot be simply derived from the conceptual dialectic, but have to be established empirically. All this is stated by Engels, in the passage from which I quoted earlier, and in this respect Engels is absolutely right. In deriving temporal change from the self-development of the concept, Hegel is standing the dialectic on its head, and it does need to be stood right side up again. But, as we have seen, Engels then supposes that we have to reject any autonomous conceptual dialectic. I am saying that we do not—we simply have to recognize that the conceptual dialectic and the temporal dialectic are distinct.

III Temporal-Empirical Dialectic:
the Marxist Version
What then are we to make of the ‘temporal’ or ‘empirical’ dialectic which Engels and other Marxists would want to retain, once it is separated from the conceptual dialectic? We might say that where the conceptual dialectic is the claim that concepts change into one another, the empirical dialectic is the claim that things change into one another. But this by itself looks incredibly banal. No one would deny that things change (no one, that is, since Parmenides and Zeno). So, in an attempt to understand what is significant in the empirical dialectic, let us forget the general statement and look at some of the particular examples which Engels uses to illustrate the empirical dialectic. There are certain cases which he regularly invokes as examples of how, by empirical scientific discovery, it has been shown that what was thought to be static is actually something changing. These are: (a) the view of modern physics that the physical universe is to be comprehended fundamentally as a complex of processes rather than of things; (b) the discovery that our solar system is not a set of unchanging planetary movements but arose out of an original nebular mass; (c) the Darwinian theory of evolution, which replaces the conception of a timeless classification of plant and animal species; (d) the recognition that social institutions (such as wage labour, capital, the family, the state) are historically specific institutions which arose in a particular social context and can likewise disappear.

What is important about these examples? In cases (b), (c) and (d), at any rate, the point is clearly that a set of phenomena may become intelligible once it is seen not as static and timeless but as the product of a process of development. A situation which defies understanding when viewed simply in terms of its present state may become intelligible when we look at its past development. Darwin’s intellectual breakthrough, for example, was to explain apparent purpose adaptation in living organisms. This is to be seen not as a massive coincidence, nor as evidence of benevolent design on the part of a divine creator, but is to be understood by postulating a past development of living species involving random genetic mutations, the inheritance of these mutant characteristics, and the elimination of less successfully adapted organisms. Similarly, in the case of human society, the Marxist claim is that in order to understand contemporary capitalist society we have to understand it as a historically specific form of social life, one which has developed out of an earlier and different kind of society. What is more, it has to be understood in terms not only of its past development but also of its future development: we have to look not only at its present actuality but also at the potentialities within it, the social forces which are an essential part of that society, but which at the same time are likely to grow to the point where they destroy it and change it into a radically different kind of society.

This dialectical way of looking at social life is opposed both to common sense and to intellectual theory, both of which tend to generalize historically specific features of social life into a timeless ‘human condition’. We are familiar with the common-sense view which says that ‘you can’t change human nature’, that ‘human beings are naturally competitive, naturally aggressive, etc.’, and which fails to see how the dominance of certain kinds of behaviour in our society is
required by and produced by the prevalent kinds of social relations. But we must add that the same failure of historical awareness is to be found in major social thinkers—for example Hobbes falsely generalizes the relations of a market society and presents them as a supposed state of nature; he and Locke and others found all human social life on contractual relations; Hume equates justice with the protection of private property; the classical political economists suppose economic laws such as the laws of supply and demand or ‘the iron law of wages’ to be the laws of all economic life as such. In all these cases the failure is a failure to think historically, that is, dialectically. Engels rightly stresses that all these theories of change in apparent stability (the Darwinian theory of evolution, the Marxist theory of society, etc.) have to be established empirically. They cannot be deduced from some general law of dialectic. Each case has to be considered separately and independently, on the basis of the relevant empirical facts. The theory of the origin of the solar system, the theory of evolution, the Marxist theory of society, are all independent of one another and involve separate sets of empirical facts. But what Engels does seem to suppose is that when we have established each of these theories in their separate domains, they can all be regarded as providing empirical support for some further very general thesis, a sort of super-scientific law, a claim that reality as a whole is dialectical. This further move is, I think, misleading and unnecessary. What could be meant by the claim that ‘reality is dialectical’? Not that ‘things change’, for, as I have already said, this seems too banal and obvious. Hopefully not that ‘everything is always changing’, since this is false. There is stability within change. We cannot describe change except by talking about ‘things which change’, and to say that a thing is changing is to imply that within the process of change there is sufficient permanence and continuity for us to identify the ‘thing’ which has undergone the change. If for example we speak of a change from feudal to capitalist society, we are saying that a certain identifiable society has changed from being feudal to being capitalist, and in that case there must be sufficient continuity for us to be able to say that it is the same society which has undergone the change. The only way in which we could make plausible the claim that everything is always changing would be in terms of the first of the four examples which I quoted from Engels—the example of theories of modern physics, theories of the ultimate constitution of matter which make use of some basic concept such as ‘energy’. But if we accept that ‘everything is always changing’ in this sense, this would be perfectly compatible with the denial of change at other levels. It would for example be compatible with a completely unhistorical view of human society. This cannot be the kind of thesis we are looking for.

The empirical dialectic, then, is not to be identified with any single general thesis which could be either true or false. Rather, the notion of an empirical dialectic points us to the value of a certain kind of explanation—developmental explanation. ‘Dialectic’ in this sense is not a super-scientific law about the whole of reality, but a way of looking at particular areas of reality, a way of understanding them. It is an immensely fruitful way of looking at things, but how fruitful it will be in any particular case can be determined only by examining the particular case.

IV Distinctions and Connections
In this paper I have been concerned to distinguish between the ‘conceptual’ dialectic and the ‘temporal’ or ‘empirical’ dialectic; to give an account of each; to show that they do not stand or fall together, but that each is valuable in its own right. The enterprise has itself been a non-dialectical one, an example of what Hegel calls the exercise of ‘Understanding’, whose function is to analyse and make distinctions, separating one thing from another. That a discussion of dialectic should itself be undialectical is not as inappropriate as it sounds. Hegel himself recognizes the need for ‘understanding’ in this sense, describing it as ‘the most marvellous and mighty, or rather the absolute power’. I would myself be content with a
more modest description of what I have been doing; but, more seriously, I would also recognize with Hegel that the role of understanding is a preparatory one. Having made the distinctions, we then need to make the connections. I have criticized Hegel’s way of connecting the conceptual and the temporal dialectic, which takes the form of identifying them. But if this is unacceptable, we should not be content merely to leave the matter there. We need to work out an alternative account of the connections between the two kinds of dialectic. My own attempt to do this will come in Essay 5 of this book.

Notes

1 Hegel’s own interpretation of Plato is rather different. In his Lectures on the History of Philosophy he interprets Plato as less of a Dualist and, in effect, as more of a Hegelian. The account which I have adhered to is the traditional one. I believe that it is also the correct one, but do not need to argue the point here. All that matters for present purposes is that it is a coherent philosophical position and is a representative example of philosophical dualism which provides the required contrast with Hegel’s philosophy.

2 Hegel himself would deny this. Cf. Phenomenology of Mind, B, p. 175, M., p. 76.


4 ibid. p. 237.

3

THE PROBLEM OF CONTRADICTION

Richard Norman

To any reader of the first two essays, it will be apparent that between Sayers’ view of dialectic and my own there are differences of emphasis, and in some cases direct disagreements. One such disagreement is on the role of ‘contradiction’ in dialectic. Sayers regards the assertion that ‘everything is contradictory’ as the basic principle of dialectical philosophy, whereas I give it a considerably more subordinate role. And Sayers regards the dialectical treatment of ‘contradiction’ as an alternative to its treatment in traditional formal logic, whereas I assert, in my previous essay, that the two are compatible. In the present essay I wish to take up again the problem of the role of ‘contradiction’ in dialectic, and to defend my own position.

I The Law of Non-contradiction

The problem is this. Dialectical thought involves the assertion that there are, in some sense, contradictions in reality. Now it has traditionally been assumed as one of the basic principles of logical thought that a statement asserting a contradiction cannot be true. This has been formalized as the law of non-contradiction—the formal logical law which stipulates that a self-contradictory proposition cannot be true as it stands, or that two contradictory propositions cannot both be true. It may seem, then, that dialectical thought requires a rejection of the law of non-contradiction. Hegel is certainly extremely scathing about this law of traditional logic and, in this as in so much else, Engels follows him directly. But many of us would be much more hesitant about rejecting what appears to be a constitutive principle of rational thought; and
this has regularly been seen as a ground for scepticism about the whole idea of dialectic.

There is a further aspect to the problem. The law of non-contradiction formulates the idea that 'contradiction' is a *critical* concept. To point to contradictions in a belief or theory is to criticize it, to show it to be defective. Now it is often thought that 'contradiction' also functions as a critical concept both in Hegelian and in Marxist versions of dialectic. For example, the development of Hegel's philosophical system progresses through contradictions. A particular form of experience is examined by Hegel and shown to be contradictory, to be therefore inadequate and to require a transition to a new form. Similarly from a Marxist point of view it would seem that to speak of contradictions in capitalism is to indicate the deficiencies of capitalism as a social system. But is this really so? How can 'contradiction' function as a critical concept in dialectical thought when we find Hegel, again echoed by Engels, saying, 'In general, our consideration of the nature of contradiction has shown that it is not, so to speak, a blemish, an imperfection or a defect in something if a contradiction can be pointed out in it' (*Science of Logic*, p. 442).

As I have said, it is undeniable that Hegel, and Engels and other Marxist defenders of dialectic, do sometimes indicate that they want to reject the law of non-contradiction. I considered, in my previous essay, their claim that the correct description of motion requires the employment of self-contradictory propositions: that whatever is in motion is also at rest, or that a moving body is 'at one and the same moment of time both in one place and in another place... in one and the same place and also not in it' (Engels, *Anti-Dühring*, p. 166). So there can be no doubt that they are hostile to the law of non-contradiction. I shall argue, however, that they have no need to be. All the important dialectical uses of 'contradiction' can be retained without having to abandon the traditional law of logic. I shall examine the notion of 'contradiction' in dialectical thought under three heads:

(a) The term 'contradiction' is used to refer to the *interdependence of opposed concepts*, the unity of opposites.
(b) The term 'contradiction' is used to refer to certain kinds of *conflict*. When does 'conflict' also involve 'contradiction'? In the first place, it does so when the conflict also falls under case (a), that is, when the forces in conflict are characterized by interdependent opposed concepts.
(c) If the conflict is an internal conflict within the purposive activity of a human individual or a human society or social institution, then the conflict can be seen as a *self-contradiction*. It is in this case that the notion of 'contradiction' functions as a *critical* concept.

But before going on to examine these dialectical uses of 'contradiction', I want to indicate why I think it important to establish that they are compatible with the law of non-contradiction. Why is it necessary to insist on the law of non-contradiction? Why is it important to insist that a self-contradictory proposition cannot, as it stands, be true? I do not think that one can give any further reason in support of the law of non-contradiction, but what one can do, I think, is to show what is at stake in the defence or rejection of it. To accept that, without further elaboration, a self-contradictory proposition can be true is to accept that one and the same proposition can be both true and false. And to accept this (again, without further elaboration) is to obliterate the distinction between truth and falsity, that is, to abandon the notion of 'truth' altogether. Similarly, to abandon the law of non-contradiction is to abandon the very idea of rational argument. It is to abandon, in particular, the idea of entailment and deductive argument, for to say that *p* entails *q* is to say that *p* and not *q* is self-contradictory; and if one is prepared to allow that such a contradiction may be true, the notion of entailment thereby loses all its force. Again, we should have to abandon the idea that a belief can be attacked by showing that the person who holds it is also committed to other beliefs and that these lead to a conclusion which contradicts the original belief. In short, if one supposes that
the idea of ‘contradictions in reality’ requires one to accept that self-contradictory propositions can be true as they stand, one is tying dialectic to irrationalism. And such an alliance would be disastrous.

To say all this is not to deny that the assertion of self-contradictory propositions may often be effective and appropriate. The cryptic paradoxes formulated by a philosopher such as Heraclitus or a writer like Blake are highly effective. Heraclitus, for instance, in one of the versions of the river-paradox, says: ‘We step and do not step into the same river’. I would still want to insist that this cannot be true without elaboration, and that what Heraclitus means is that the river is the same river in the sense of following the same course although the water is always different. But this formulation would be much less striking, and hence less thought-provoking. Nevertheless the possibility of such elaboration to remove the logical impossibility is what distinguishes such utterances from merely arbitrary paradoxes. The paradox is thought-provoking just because the reader can think about how to reformulate it so that it does express a non-contradictory statement.

Again, I do not want to deny that theories which are logically self-contradictory may be significant and fruitful just in so far as they are self-contradictory. Sayers, in Essay 1, quotes Popper as saying,

From two contradictory premises, we can logically deduce anything and its negation as well. We therefore convey with such a contradictory theory—nothing. A theory which involves a contradiction is entirely useless, because it does not convey any sort of information.

(quoted above, p. 11)

I quite agree with Sayers’s attack on Popper’s position. A theory which involves a contradiction can, by that very fact, convey a great deal. I have often heard Sayers himself make this point by reference to examples from the history of philosophy. Locke’s empiricist theory of knowledge, for example, is in contradiction with his causal and representational theory of perception, for the latter theory describes ideas as caused by and resembling ‘originals’ of whose nature and existence we could, according to the former theory, know nothing whatever. But this contradiction does not make Locke’s philosophy useless; it is its very great merit that it thereby identifies a fundamental difficulty in empiricism, and does justice to two natural and attractive, but conflicting, tendencies within empiricist epistemology. Locke raises problems which a less perspicacious philosopher would fail to unearth. Similarly, Mill’s talk of higher and lower pleasures is in contradiction with his own utilitarian theory of value which states that pleasure is the sole criterion of values. But this contradiction is one of the most revealing and enlightening features of Mill’s moral philosophy. It highlights the inadequacy of a crude utilitarianism such as Bentham’s, while recognizing also the persuasiveness of the utilitarian approach; and the superior philosopher is Mill, who is guilty of the contradiction, not Bentham, who avoids it. Now what I want to insist on is that, in each of these cases, the existence of the contradiction shows that there is something wrong with the theory—it cannot be correct as it stands. On the other hand, though the theory is thereby negated, the negation is what Hegel calls a ‘determinate negation’. Because the contradiction is one which has arisen in a specific way, out of particular features of the theory, it has a positive content and points us beyond the negated theory to a new and more adequate position. This, as I have mentioned previously, is a principal element in Hegel’s philosophical method, especially in the Phenomenology of Mind. Hegel, unlike Popper, sees that the contradictions in a theory do not make it useless, but are positive features of it. Sayers is right to emphasize this. But still, the contradictions in a theory are fruitful just because a self-contradictory theory cannot be accepted as it stands.

I turn, then, to the distinctive uses of ‘contradiction’ in dialectical thought, and to the attempt to show that these are compatible with the law of non-contradiction.
Hegel a few pages previously are ‘virtue’ and ‘vice’, and ‘truth’ and ‘error’. Here it is not even the case, as it was with ‘above’ and ‘below’, that a particular instance of virtue has to exist in relation to a particular instance of vice. The point, I take it, is simply that, in general, there could not be such a thing as virtue unless there were also such a thing as vice. The one concept could not be made intelligible without the other. What is being offered here is a contrast theory of meaning, and ‘the existence of contradictions’ in this sense is relatively uncontroversial.

More interesting are those opposites which themselves form the main categories of Hegel’s Logic—categories such as ‘identity’ and ‘difference’, ‘quality’ and ‘quantity’, ‘essence’ and ‘appearance’, ‘universal’ and ‘particular’, ‘cause’ and ‘effect’, ‘chance’ and ‘necessity’ and so on. In Essay 2 I looked at Hegel’s insistence on the mutual interdependence of these opposed concepts. The same categories are taken up by Engels in his *Dialectics of Nature*, where he applies to them his ‘law of the interpenetration of opposites’. In the earlier essay I said something about the importance of treating such categories dialectically, and I shall return to this theme in Essay 5. In the present essay I shall confine myself to explaining why the dialectical treatment of them warrants the use of the term ‘contradiction’.

The relation between these opposed categories is tighter than that between the rather trivial examples I have previously quoted. Here the point is not just that, for the one concept to be applicable, the opposed concept must be applied to something else, but rather that, for the one concept to be applicable, the opposed concept must also be applied to the same thing. What is ‘identical’ is also ‘different’, and preserves its identity only in so far as it also becomes different. A ‘qualitative’ change is also a ‘quantitative’ change, and can be the one only in so far as it is also the other; and so on. This is a ‘unity of opposites’ in a stronger and more interesting sense than before. The contradiction which is involved could, with more plausibility, be said to require the assertion of a self-
contradictory statement—for the statement that one and the same thing possesses opposite characteristics looks like a self-contradictory statement. However, I still want to resist this suggestion. In all these cases the same thing can possess opposite characteristics because they are ascribed to it under different aspects, from different points of view. The same thing, over a period of time, remains identical in some respects but becomes different in others; the same change can be characterized as a quantitative change at one level of description and as a qualitative change at another level of description. Consider another example. In the Philosophy of Right, Hegel describes the emotion of love in these terms:

Love means in general terms the consciousness of my unity with another, so that I am not in selfish isolation but win my self-consciousness only as the renunciation of my independence and through knowing myself as the unity of myself with another and of the other with me... The first moment in love is that I do not wish to be a self-subsistent and independent person and that, if I were, then I would feel defective and incomplete. The second moment is that I find myself in another person, that I count for something in the other, while the other in turn comes to count for something in me. Love, therefore, is the most tremendous contradiction; the understanding cannot resolve it. . . .

(Addition to Para. 158)

Here we have the appearance of a self-contradictory assertion; love is both the losing and the gaining of an independent identity. But Hegel does not simply leave it there, as an inexplicable paradox. The paradox can be, and has to be, elaborated. We have to say something like this: that, at one level, love means living for another and ceasing to be preoccupied with oneself and one’s own interests, but that at the same time this relationship gives one a fuller and deeper sense of identity in so far as this is objectified and confirmed by the other person. If Hegel’s claim can be elaborated along these lines, the description of love ceases to be, strictly speaking, a logically self-contradictory proposition. To employ a banal analogy, it is like the proposition ‘it is raining’ in so far as this ceases to be self-contradictory when spelled out as ‘it is raining in London but not in Paris’. And it is essential for Hegel to be able to show that the paradox can be resolved in this way, by being further elaborated. For someone might object to Hegel’s account precisely by claiming that the resolution is impossible, that what Hegel has identified is in fact a genuinely vicious contradiction which shows love to be an impossibility. Sartre, in his rather jaundiced account of sexual relations in Being and Nothingness, seems to be doing just this, claiming that love, as a simultaneous self-affirmation and self-negation, is impossible, and that in practice all sexual relations take the form of either sadism or masochism. Hegel, to distinguish his own position from this, would have to show that the contradiction which he finds in love is a non-vicious contradiction—that is, it can be elaborated so as to be stated in a proposition which is not logically self-contradictory.

This seems to me to be confirmed by what Hegel goes on to say immediately after the passage just quoted, for his next sentence is: ‘Love is at once the propounding and the resolving of this contradiction’. So Hegel does consider that the contradiction is resolved. But—and this is the crucial point—in Hegel’s terminology contradictions, when they are resolved, do not cease to be contradictions.¹ The opposition between the two sides of the contradiction does not simply disappear; rather, the contradiction is resolved by showing how the opposites can coexist within a unity. But the fact that this unity is still a unity of opposites is the reason for calling it a ‘contradiction’.²

III Contradiction as Conflict of Opposed Forces

This ‘interdependence of opposed concepts’ is what I regard as the most characteristically Hegelian form of contradiction. I have argued that the existence of such contradictions does not require the abandonment of the law of non-contradiction. As I have indicated, contradictions of this typically Hegelian kind feature prominently also in Marxist dialectic, but they are sometimes confused with another sort of contradiction.
Lenin, for instance, in his notes 'On the Question of Dialectics', says:

The identity of opposites (it would be more correct, perhaps, to say their 'unity'...) is the recognition (discovery) of the contradictory, mutually exclusive, opposite tendencies in all phenomena and processes of nature (including mind and society). The condition for the knowledge of all processes of the world in their 'self-movement', in their spontaneous development, in their real life, is the knowledge of them as a unity of opposites. Development is the 'struggle' of opposites. ([Philosophical Notebooks, pp. 359–60—italics in original])

Lenin then goes on to give as examples of the unity of opposites the interconnection of the individual and the universal, the contingent and the necessary, the appearance and the essence. These are instances of the kind of contradiction which we have just been looking at. But they are not instances of the 'struggle' of opposites. As Lenin says, the individual and the universal are dialectically related because 'the individual exists only in the connection that leads to the universal' and 'the universal exists only in the individual and through the individual'. But there is no question here of a struggle between the individual and the universal. With this notion of 'development through conflict' we move to a different conception of contradiction. It is, as we shall see, not unconnected with the previous concept, but it introduces a distinctively new emphasis. What is now asserted is that there are contradictions in reality in so far as there are conflicts between antagonistic forces, and that these are the source of all changes and all developments, as evidenced by Newtonian mechanics, the the Darwinian theory of evolution, and the Marxist theory of class struggle.

The notion of contradiction as conflict is, I think, the one with which Sayers is principally concerned. He says: 'When dialectical thinkers talk about contradiction they are referring to conflicts of opposing forces or tendencies in things.' (p. 7). This Marxist belief in the importance of conflict, especially in society, is one to which I would wholly subscribe. Anyone who is at all impressed by Marxist social theory must, I think, accept (a) that society is the arena of fundamental and irreconcilable conflicts (despite constant ideological affirmations of 'national unity' and 'the national interest'), and (b) that such conflict is not of purely negative significance, but is the generator of all historical progress. But the question is, of course: by what right are such conflicts referred to by the logical term 'contradiction'?

Sayers tackles this question in Essay 1. He says: 'Dialectical contradiction is more than mere conflict and opposition... The dialectical law of contradiction asserts that conflict and opposition are necessary, essential and internal to things.' (p. 16) Sayers is claiming, then, that conflicts can be called 'contradictions' because they are necessary, essential, and internal. This answer seems to me to need further examination. Sayers does not appear to want to make any important distinctions between 'necessary', 'essential' and 'internal', but they do seem to me to need distinguishing.

1 Necessary

The relevance of 'necessity' is stated by Sayers as follows: 'Dialectical philosophy... is a logical theory in the sense that it puts forward the law of contradiction as a logical law; as a universally valid principle which describes the necessary and essential character of concrete reality.' (p. 18) The sequence of ideas here seems to be: (1) The term 'contradiction' belongs in the sphere of logic, it refers to a logical relation. (2) The logical term 'contradiction' can nevertheless be applied to all conflicts because the assertion that 'everything contains conflict' is a law of logic, a logical law. (3) It is a logical law because it asserts what is necessarily the case.

This seems to me to involve a confusion. Sayers is concerned to defend the notion of 'natural necessity' which has always been viewed with scepticism by positivist philosophers. I am inclined to agree with him on this point. I
accept that conflicts in nature are 'necessary', that is, that they occur in accordance with scientific laws which assert what is necessarily the case. But such laws do not assert what is logically necessary (and even if they did, this would still not show that they serve to identify 'logical relations between things' (p. 18), still less that they are 'laws of logic'). It is crucial to distinguish the notion of 'natural necessity' from that of 'logical necessity'. Sayers is, I think, in danger of conflating them and of thus falling into an extreme rationalism, a fate which he would surely want to avoid since he himself stresses that the necessities in nature cannot be known a priori (p. 19). Sayers cannot, then, in this way assimilate the notion of natural conflict to that of logical contradiction.

2 Essential
Sometimes Sayers uses 'essential' as a synonym of 'necessary', but there is also a more specific use which he gives to it. An essential opposition is then one in which neither term can exist without the other. Sayers says:

'The proletariat and the bourgeoisie are essentially related: both are created by capitalist conditions of production, and neither could have come into existence without the other... Neither the proletariat nor the bourgeoisie can be properly understood unless they are considered as the contradictory aspects of a single totality.' (p. 8)

What this suggests is that for Sayers an 'essential conflict' is one which is characterized by means of mutually interdependent opposed concepts, of the kind which I discussed in the previous section. One can understand what is meant by 'proletariat' only by understanding the relation of the proletariat to the bourgeoisie within a particular social system. The two concepts depend on one another for their intelligibility. Consider another example which Sayers employs, that of conflict between natural forces. If a meteor collides with a planet, the description of the collision in these terms does not yet present it as an essential conflict; each body could exist outside this relation of conflict. But in so far as they are in collision they can be characterized as 'inciting force' and 'incited force', and the relation between them when described in these terms is then one of essential conflict (cf. Hegel's 'Force and Understanding' in the Phenomenology).

As Sayers says, 'No force can operate in a void: a force must operate on something. And in order to operate on something, it must meet with some resistance, in the form of an opposing force' (p. 9). Thus 'inciting force' and 'incited force' are opposed aspects of a unity. The conflict between them is essential to the nature and existence of each force; they are dialectical opposites within a unity. In other words, the notion of a 'conflict of opposed forces' here comes to involve also the notion of dialectical contradiction as 'interdependence of opposed concepts'.

I agree, then, with Sayers's claim that when conflicts are understood in this light, the vocabulary of 'contradiction' becomes appropriate. But this does not entitle us to say that one force 'contradicts' another force. The term 'contradiction' still refers to the relation between the concepts by which the forces are characterized. The relation between the concepts 'inciting force' and 'incited force' is one of contradiction because it is a meaning-relation. The two have opposite meanings but at the same time each depends for its meaning on its relation to the other. This is what makes the relation between them an interdependence of opposites, an opposition within a unity, a contradiction.

3 Internal
A conflict which is an essential conflict could, in a sense, be described also as an internal conflict. (It is internal to the nature of force that it can act only in relation to another force. The conflict between the proletariat and the bourgeoisie is internal to capitalism and internal to the character of each of these classes.) But there is another, much stronger notion of 'internal conflict' which needs developing—and it is here that we need to distinguish between conflicts in the natural world and conflicts in human thought and activity. One and the
same force cannot be in conflict with itself. The conflict is between one force and another, not a conflict within the one force. But one and the same person can hold conflicting beliefs, and it is in such a case that we can talk of self-contradiction.

IV Contradiction as Irrationality
Those who would baulk at the idea that the concept of 'contradiction' can illuminate our understanding of natural forces would certainly find acceptable the idea of beliefs contradicting one another, and for this reason they have wanted to maintain that the concept has no application to the natural world but only to the human world. As I have indicated, I believe that 'contradiction' does have a role to play in our understanding of the non-human sphere, and in Essay 5 I shall defend a modified version of the dialectic of nature. Nevertheless there are differences between the ways in which one can talk about 'contradiction' in the two spheres—and indeed it would be highly surprising if this were not so.

It is, of course, when we come to speak of a person's beliefs as in conflict with one another, and therefore self-contradictory, that the concept of 'contradiction' becomes a critical concept. Beliefs are criticized in so far as they are held to be self-contradictory, and this critical force is encapsulated in the law of non-contradiction. Equally obviously, the assertion that 'contradictions exist', when this is an assertion that people's beliefs are in fact sometimes contradictory, does not itself violate the law of non-contradiction. The latter maintains not that people never contradict themselves, but that when they do so their conflicting beliefs cannot both be true.

Now self-contradiction in the human sphere is not confined to beliefs. A person's behaviour also may be self-contradictory. Take the case of a teacher who is continually urging his students to think for themselves, constantly trying to get them to state their own ideas, but who, as soon as they say anything, immediately jumps down their throats, producing a host of incisive critical remarks which are so intimidating that they effectively inhibit the students from ever stating any thoughts of their own. This person's behaviour is self-contradictory. What makes it appropriate to talk of 'self-contradiction' in relation to behaviour as well as beliefs? What is important, I think, is that behaviour, like beliefs, can be rationally assessed. The different actions are actions of a single agent, who, in so far as he is committed to a rational assessment of his beliefs and actions, is thereby committed to making them consistent with one another. It would be characteristic of a mechanistic philosophy of mind to view any example as a case of a conflict between opposing mental forces. Certainly, it is that (and these mental forces would themselves be a reflection of conflicting forces in the society). But in the present case the conflict takes on a further dimension. It is not just a conflict between opposing forces, it is also a conflict within a single potentially rational agent. And it is just for that reason that we can describe the behaviour as self-contradictory, self-defeating, irrational.

Consider now a further extension of my example. The self-contradiction which I described could be found not only in an individual agent but also in an institution. A university may be dedicated to the encouragement of critical thought, it may employ forms of teaching directed at that aim (supervisions and discussions rather than lectures, etc.). At the same time the university may tend to stifle the very critical attitudes which it encourages, for example by rigid syllabuses, by examinations which have the effect of gearing students' work to the production of correct and safe exam answers. Here the university's activities are self-contradictory in just the way that the teacher's were. And the justification for speaking of 'self-contradiction' here is the same. The university is a human institution, existing for the pursuit of certain aims, and requiring to be rationally assessed. If its activities contradict one another, then it is to be criticized as being, to that extent, an irrational institution.4
This example can, I would suggest, provide us with a model for the idea of ‘contradictions in capitalism’. One aspect of the fundamental contradiction within capitalism is the antagonism between proletariat and bourgeoisie, to which I have already referred. But the fundamental contradiction in capitalism is also to be seen as a contradiction between the productive forces and the relations of production. The capitalist economic system is such that the forces of production expand through being socialized, but this tendency is in conflict with capitalism’s essential dependence on private property relations. Thus capitalism frustrates the very possibilities of material abundance which it is capable of making available. What it promises through the rational organization of production within the factory or the firm, it frustrates through the anarchy of the market. This internal contradiction within capitalism is, I think, analogous to the contradiction which I described within the university. It is what makes the capitalist system self-contradictory and irrational.

An exposition of the notion of ‘contradiction’ along something like these lines is to be found in a paper by Roy Edgley on ‘Science, Social Science and Socialist Science’. My own discussion here was prompted by that paper, though I am not at all sure that Edgley would agree with what I have made of it. But at any rate there does seem to me to be a basic difference between the notion of ‘contradiction’ which Edgley is working with and the one which Sayers is working with. Sayers sees ‘contradiction’ as essentially a descriptive and explanatory concept; Edgley sees it as an evaluative and critical concept. In looking further at the dialectical uses of ‘contradiction’, and in particular at the difference between the first two and the third, I hope I may have helped to show how the concept can perform both these roles.

At the same time, I do not think that Edgley’s use of ‘contradiction’ can carry quite the weight which he wants to put on it in that paper. He seems to see at as the critical concept to be employed by socialist science, as the one concept which is essential for bridging the divide between fact and value. And one reason why he would be less than happy with my own account is that it assimilates the critical role of ‘contradiction’ to what he calls ‘technical rationality’. In my example, the university is internally contradictory because it defeats its own aim of encouraging critical thought, but this criticism gets its full force only if one sees that aim as a desirable one. Correspondingly, in my account of the contradiction in capitalism, if one says that capitalism frustrates the very possibilities it creates for material abundance, this is a really powerful criticism only if the aim of material abundance is held to be a desirable one. This is true, and I would accept the implication—that ‘contradiction’ cannot be the only critical concept to be employed by socialist science. It is equally important for a socialist critique to assert that capitalism is exploitative and oppressive, that it turns work into drudgery, that it destroys relations of co-operation and solidarity between human beings. And all of these assertions—not just the assertion that capitalism is contradictory—bridge the gap between fact and value.

At the same time, it is worth noting how all these other critical concepts are linked with the contradictory character of capitalism. Capitalist society fosters aspirations to freedom which it also frustrates. It parades formal equalities which conflict with real inequalities (e.g. the contradiction within the education system between ‘equality of opportunity’ and the real factors of wealth, background and environment which make all the difference to what is made of these opportunities). Through advertising and by other means, capitalism stimulates desires for the acquisition of commodities while ensuring that most people are in no position to satisfy such desires. The morality of altruism fostered by home, school and church is contradicted by the aggressive ambition necessary for success in capitalist society and inculcated by these same institutions. The career ambitions fostered in childhood (“What are you going to be when you grow up?”) are contradicted by the realities of work or the
dole. In all such cases the mere fact of contradiction does not carry the whole critical weight. It nevertheless remains important that the critical concepts applied to capitalist society do not appeal to transcendent values in a Platonic heaven, but to needs and potentialities fostered by capitalist society itself.

To sum up: dialectical thought extends the traditional notion of contradiction in two ways. In the first place it recognizes contradictions not just within beliefs but also within social institutions and forms of life. Secondly, it applies the term ‘contradiction’ to certain pairs of concepts which are related to one another as interdependent opposites. When used in the first way the term functions as a critical concept. When used in the second way it identifies not ‘a blemish, an imperfection or a defect’ but rather an essential feature of the conceptual framework through which we understand both the natural and the social world. Asserting the existence of contradictions, in either of these senses, need not involve violating the law of non-contradiction.

Notes

1 I add here some further quotations which seem to me to confirm that, for Hegel, the ‘contradictions in reality’ are resolved contradictions. In the Larger Logic the discussion of ‘Contradiction’ concludes with the transition to the category of ‘Ground’, of which Hegel says

The resolved contradiction is therefore ground, essence as unity of the positive and negative... Opposition and its contradiction is, therefore, in ground as much abolished as preserved.

(Science of Logic, p. 435)

And again:

... it is not, so to speak, a blemish, an imperfection or a defect in something if a contradiction can be pointed out in it. On the contrary, every determination, every concrete thing, every Notion, is essentially a unity of distinguished and distinguishable moments...

Now

the thing, the subject, the Notion is just this negative unity itself; it is inherently self-contradictory, but it is no less the contradiction resolved: it is the ground that contains and supports its determinations.

(Enc. Logic, sec. 89)

Similarly in the Shorter Logic, the category of Determinate Being introduces the claim that 'there is absolutely nothing whatever in which we cannot and must not point to contradictions or opposite attributes', but Hegel then continues:

Hence Being Determinate is the unity of Being and Nothing, in which we get rid of the immediacy in these determinations, and their contradiction vanishes in their mutual connexion—the unity in which they are only constituent elements... The result is the abolition of the contradiction.

2 From what I have been saying it follows that this notion of dialectical contradiction cannot be described in purely formal terms. On this point I agree with Sayers, but for different reasons and with a different meaning.

There are two basic reasons for distinguishing this kind of dialectical contradiction from formal contradiction. (1) In the first place, it involves a relation between opposites—and the concept of 'opposites', unlike that of 'contradictory predicates', cannot be explicated in merely formal terms. Examples of opposites are 'essence' and 'appearance', 'universal' and 'particular', 'identity' and 'difference', etc., whereas any predicatable term whatever, together with its formal negation, can serve as examples of contradictory predicates ('red' and 'not-red', 'book' and 'not-a-book', etc.). Hegel does indeed, in the early sections of the Logic, deal with the interrelationship of merely contradictory predicates (e.g. in Enc. Logic, secs. 91−2). But in the deeper notion of contradiction which is subsequently developed, the stress is on the interrelationship of a concept with its own specific opposite.

(2) Nevertheless this assertion of the interrelationship of opposites does, as we have seen, raise the question of formal contradiction. For it involves the assertion that 'x is F and x is also G, where F and G are opposites', and this, though not equivalent to, at any rate entails 'x is F and x is also not-F', which as it stands is formally self-contradictory. Now what I have been suggesting is that the formal contradiction can be removed, and that assertions of dialectical contradiction must be capable of reformulation in the form 'x-under-aspect-A is F, and x-under-aspect-B is G'. In other words, we avoid a formal contradiction
by predicking the opposites of different logical subjects. But what makes it still appropriate to talk about a (non-formal) contradiction is the fact that the different logical subjects are the same thing considered under different aspects.

Thus everything depends on giving some significant content to the concept of a ‘thing’, which is distinct from the concept of a ‘logical subject’ and is not a purely formal concept. Dialectical contradiction, in other words, presupposes a concrete ontology. I cannot attempt here the task of formulating this ontology. All I can say is that within the class of ‘things’ I include the ordinary constituents of the everyday world—natural features of the landscape (hills, rivers, rocks, etc.), plant and animal organisms, human beings, and human artefacts, together with more problematic entities such as events, actions, and social institutions. And within the class of ‘opposites’ I include the fundamental ontological categories (identify and difference, quantity and quality, etc., etc.) which are needed for an understanding of the world. In these senses, a pair of ‘opposites’ can both be predicated of the same ‘thing’. (I should like to thank Keith Jones for conversations on these matters.)

One could indeed speak of the proletariat ‘contradicting’ the bourgeoisie, but this is so for other reasons—reasons which will come to the fore in the next section. The conflict between proletariat and bourgeoisie is in part a conflict of beliefs, values, intentions, etc., and it is in virtue of this that the two classes can be said to contradict one another.

It goes without saying, I hope, that this is not intended as an adequate analysis of the nature of universities. If that were my aim, I should obviously have to go on to say a great deal more, and in particular to show how the contradictions within the university are themselves a product of the more fundamental contradictions of the society within which the university is located.


4

DUALISM, MATERIALISM AND DIALECTICS:

Sean Sayers

I The Unity of Opposites

Everything concrete is contradictory and a unity of opposites. This is the basic principle of dialectical thought. It is the fundamental principle of Hegel’s philosophy and of dialectical materialism, the philosophy of Marxism. In this essay I shall try to explain these views and to defend them against some common misinterpretations and criticisms. To do so, I shall focus primarily on Richard Norman’s account of dialectic.

Norman’s major concern is to distinguish ‘two kinds of dialectic’—two kinds of contradiction, two kinds of development and change—the ‘conceptual dialectic’ and the ‘empirical dialectic’. The ‘conceptual dialectic’, according to Norman, describes relations between concepts: purely logical relations, which are ‘atemporal’ in character and which can be known a priori. The ‘conceptual dialectic’ describes the sphere of logic, the sphere of Reason; and for Norman, as we shall see (in section III below), this is not confined to ideas and thoughts, but embraces also rational human activity. The ‘empirical dialectic’, by contrast, describes ‘literal material changes’ in ‘the real world’ (p. 37): it describes processes which occur in space and time and which can be known only through experience. Thus Norman presents the ‘conceptual dialectic’ and the ‘empirical dialectic’, the sphere of reason and the empirical world of nature, as exclusive opposites, absolutely separate and distinct from each other; and it is in these terms that he tries to interpret the philosophy of dialectic, the philosophies of Hegel and of Marxism.
According to Norman, then, we must distinguish two types of dialectic: the ‘conceptual dialectic’ and the ‘empirical dialectic’; and it is on the basis of this distinction that he attempts to portray Hegel’s dialectic as a ‘conceptual’ one. The same approach is adopted in his book, Hegel’s *Phenomenology*, where he writes, ‘For Hegel, the dialectic is primarily a feature of concepts’ (p. 123). Engels and other dialectical materialists, on the other hand, reject this Hegelian ‘conceptual dialectic’ as ‘idealistic’, and substitute instead the idea of an ‘empirical dialectic’, a dialectic of things. In Norman’s words ‘Engels’ response is then to retain the idea of dialectic, but to treat it as a thesis about change in the physical world, in natural processes and in human history’ (*Hegel’s Phenomenology*, p. 126).

In their essentials these ideas are hardly new. Colletti, indeed, regards this as the account which has been traditional for dialectical materialism (though wrongly as I shall argue below) and he describes it in the following terms. ‘In Hegel the dialectic is a dialectic of concepts; after the materialistic “inversion” affected by Marx and Engels, the Hegelian dialectic became, on the contrary, a dialectic of matter and of things’ (*From Rousseau to Lenin*, p. 120). What is new in Norman’s account is the expression of these views in the language of analytical philosophy. However, in whatever language they are expressed, they will not do: things are not this simple. Hegel’s dialectic is not merely ‘conceptual’, nor is the materialist dialectic merely ‘empirical’.

The simple picture of Hegel’s dialectic as merely ‘conceptual’ in character is complicated by the fact that Hegel refers repeatedly to dialectical processes in nature. Although Norman is aware of this fact, his basic account of Hegel’s dialectic as a ‘conceptual dialectic’ makes him somewhat reluctant to acknowledge Hegel’s belief in a dialectic of nature. At times he even tries to reject such talk on Hegel’s part as mere ‘metaphor’ and as Hegel being ‘rather carried away by his vocabulary’ (p. 32). And, otherwise, he tends to
dismiss Hegel’s talk of an ‘empirical dialectic’ on the grounds that Hegel assimilates natural processes to conceptual ones. Hegel is accused of regarding material events as the direct expression and embodiment of purely logical processes; and thus his references to dialectical processes in nature are dismissed as ‘idealism’, indeed as ‘the worst and least plausible aspect of his idealism, that aspect in which it becomes a kind of pantheism’ (p. 41).

I shall come to the question of Hegel’s idealism presently, but for the moment I simply wish to emphasize the distortion of Hegel’s philosophy which results from trying to portray it as merely ‘conceptual’ and ‘logical’, as opposed to ‘empirical’, in character. Hegel reiterates his rejection of this view. He asserts that the content of logic and philosophy in general is not mere ideas or concepts, but ‘actuality’ (Enc. Logic, sec. 6, p. 9); and he insists that his dialectic is not a merely ‘conceptual’ or logical development, but also and equally a process of reality itself. No matter how ‘idealistic’ or ‘pantheistic’ all this may be, it is what Hegel says and it is important to be clear about it.

This is not to deny, of course, that Hegel recognizes dialectical processes among concepts. As Norman emphasizes, the system of opposed categories and concepts which comprise Hegel’s philosophy unfolds according to dialectical principles. But nevertheless, Hegel’s dialectic is not a ‘conceptual’ one in Norman’s sense. For Hegel, the dialectic is never a ‘conceptual’ as opposed to an ‘empirical’ matter; its operation is not restricted to the realm of concepts. On the contrary, Hegel’s dialectic is universal in its operation. It is at work in all things: everything concrete is contradictory. Despite his notorious obscurity, Hegel states this repeatedly and with absolute clarity. There is no question of his being ‘rather carried away by his vocabulary’ or of his ‘metaphors taking over’ (p. 32). On the contrary, he says, in the plainest possible terms, ‘there is absolutely nothing whatever in which we cannot and must not point to contradictions or opposite attributes’ (Enc. Logic, sec. 89, p. 169) and he reiterates this view throughout his work. Indeed, for Hegel, the principle of the universality of contradiction is the fundamental principle of dialectic. He explicitly rejects the idea of a merely ‘conceptual’ dialectic, the idea that ‘thought or Reason, and not the World, is the seat of contradiction’ (Enc. Logic, sec. 48, p. 98).

The attempt to push Engels and the philosophy of dialectical materialism into the corresponding pigeon-hole of an ‘empirical dialectic’ is equally and similarly unsatisfactory. According to Norman:

Engels distinguishes between a ‘dialectic of concepts’ and a ‘dialectic of the real world’ which can be known empirically, through the sciences. He regards Hegel’s version of the former as incompatible with materialism, and considers that as materialists we must abandon it and replace it with the latter. (p. 34)

Of course, it is true that Engels regards the empirical world, the world of nature, as dialectical and contradictory. However, it is simply untrue to suggest that what Engels is doing is merely substituting his own ‘dialectic of the real world’ for Hegel’s ‘dialectic of concepts’. Like Hegel, Engels repeatedly and explicitly asserts that the dialectic is at work not only in nature, but also ‘in Human society and thought’ (see e.g. Anti-Dühring, p. 194); and this idea has been stated and defended with equal clarity by all the great Marxist writers.

Contradictions exist in all things: both in the realm of concepts and in the empirical world of things. This is the law of contradiction, the fundamental principle of dialectical thought; and, whatever their other differences, there is no doubt that both Hegel and dialectical materialism are agreed in asserting it. This does not mean that they absolutely reject the distinction that Norman is trying to draw between a ‘dialectic of concepts’ and a ‘dialectic of the real world’. On the contrary, they both recognize differences between the processes of rational thought and the development of things in the material world, and they both make such a distinction.
Thus Hegel's *Science of Logic* is divided into two parts: the ‘Objective Logic’ and the ‘Subjective Logic’; and, similarly, Engels, in his *Dialectics of Nature*, talks of ‘objective dialectics’ which ‘prevails throughout nature’, and contrasts this with ‘subjective dialectics, dialectical thought’ (*Dialectics of Nature*, p. 211). Certainly, Hegel and Engels make a distinction between the processes of thought and physical processes, between conceptual and empirical matters, between logic and reality—but not in the way done by Norman and like-minded writers. For as well as acknowledging the distinction of these opposites, dialectics equally recognizes their *unity*. Hegel says, 'The grasping of opposites in their unity or of the positive in the negative... [This] is the most important aspect of dialectic, but for thinking which is as yet unpractised and unfree it is the most difficult' (*Science of Logic*, p. 56).

The dialectical idea of contradiction is of a concrete unity of opposites, and this, as Hegel says, is 'the most important aspect of dialectic'. And yet it is just this idea that is rejected in Norman's basic scheme. Conceptual questions and empirical ones, the sphere of reason and the world of nature, are regarded by him as exclusive opposites, absolutely distinct and separate from each other, without any common ground between them. Such rigid and absolute either/or dichotomies are characteristic of abstract and metaphysical thought and the very opposite of dialectics, as Hegel, Engels and other writers on dialectic never tire of repeating. Thus Hegel, for example, talks of the 'strict Either/Or' of 'metaphysical understanding', which consists in the tenacity which draws a hard and fast line between certain terms and others opposite to them. The contrary of this rigidity is the characteristic of all Speculative [i.e. dialectical—S. S.] truth... The battle of reason is the struggle to break up the rigidity to which the understanding has reduced everything. (*Enc. Logic*, sec. 32 Z, pp. 66–7)

In general, dialectical thought is the attempt to see things concretely. It maintains that in concrete reality opposite things and aspects are not merely distinct, there is no absolute gulf between them and they are not merely self-sufficient entities. On the contrary, as Hegel says:

> Every actual thing involves a coexistence of opposed elements. Consequently to know, or, in other words, to comprehend an object is equivalent to being conscious of it as a concrete unity of opposed determinations. The old metaphysic... when it studied the objects of which it sought a metaphysical knowledge, went to work by applying categories abstractly and to the exclusion of their opposites. (*Enc. Logic*, sec. 48 Z, p. 100)

The idea that all concrete things are contradictory and involve 'a coexistence of opposed elements' is not peculiar to Hegel; it is equally the view of dialectical materialism, and is to be found clearly and explicitly stated in the major philosophical works of Marxism. Thus Engels includes 'the law of the interpenetration of opposites' among his three laws of dialectics (*Dialectics of Nature*, p. 62). According to Lenin, 'dialectics can be defined as the unity of opposites' (*Philosophical Notebooks*, p. 223); and the same view is reiterated by Mao Zedong. 'The law of contradiction in things, that is, the law of the unity of opposites, is the basic law of materialist dialectics' ("On Contradiction", p. 23).

3

The idea of a concrete unity or identity of opposites is fundamental to dialectics in all its forms, it is therefore important to understand what is involved in it. In particular, it is important to see that when dialectical philosophers talk of the identity of opposites, they are referring to a concretely and *dialectical* identity, which must not be confused with the abstract and formal identity of traditional logic. As Hegel says:

> It is important to come to a proper understanding of the true meaning of Identity: and, for that purpose, we must especially guard against taking it as abstract Identity, to the exclusion of all Difference. That is the touchstone for distinguishing all bad philosophy from what alone deserves the name of philosophy. (*Enc. Logic*, sec. 115 Z, p. 214)
When traditional logic (and the metaphysical philosophy which is based upon it) talks of identity, it has in mind the absolute identity of formal logic, \( A = A \), which excludes all difference: ‘everything is what it is and not another thing’.² By this account, a thing which remains identical does not change, and a thing which changes thereby loses its identity. No one specifies this notion of identity better, or brings out more clearly the philosophical problems to which it leads, than Hume:

We have a distinct idea of an object, that remains invariable and uninterrupted thro’ a suppos’d variation of time; and this idea we call that of identity or sameness. We have also a distinct idea of several different objects existing in succession, and connected together by a close relation; and this to an accurate view affords as perfect a notion of diversity, as if there were no manner of relation among the objects. But tho’ these two ideas of identity, and a succession of related objects be in themselves perfectly distinct, and even contrary, yet ‘tis certain, that in our common way of thinking they are generally confounded with each other.

(Treatise I.iv. 6, p. 253)

What Hume here gives is the metaphysical account of identity and diversity (difference). For him it is a matter of either/or: identity and difference are absolute opposites which entirely exclude each other. This account renders all change and development incomprehensible: if a thing changes in any respect, then it can no longer be the same thing. In this way Hume is led into all sorts of strange paradoxes which, to his great credit, he spells out in the most uncompromising and unflinching terms. Thus, for example, ‘in our common way of thinking’, Hume observes:

Tho’ every one must allow, that in a very few years both vegetables and animals endure a total change, yet we still attribute identity to them, while their form, size and substance are entirely alter’d. An oak, that grows from a small plant to a large tree, is still the same oak; tho’ there be not one particle of matter, or figure of its parts the same. An infant becomes a man, and is sometimes fat, sometimes lean, without any change in his identity.

(ibid. p. 257)

According to Hume, however, since identity absolutely excludes diversity or difference, all talk of identity in such cases must be rejected:

Objects, which are variable or interrupted, and yet are suppos’d to continue the same, are such only as consist of a succession of parts, connected together by resemblance, contiguity, or causation. As such a succession answers evidently to our notion of diversity, it can only be by mistake we ascribe to it an identity.

(ibid. p. 257)

Hume is thus led to the conclusion that all our everyday attributions of identity to objects are mistaken. Dialectics, by contrast, is closer to ‘our common way of thinking’ about identity and difference, since it, too, ‘confounds’ them, or rather it identifies them. For, according to dialectics, concrete identity includes difference. All concrete things develop and change and thus, up to a point, preserve their identity through change. The oak that grows and changes is still the same oak; the person who develops and changes is still the same person; the ship that is repaired and altered is still the same ship, and so on and so forth. The identity of concrete things includes change and difference within it since it persists through change. F. H. Bradley explains these ideas very clearly as follows:

‘Evolution’, ‘development’, ‘progress’, all imply something identical throughout, a subject of the evolution, which is one and the same. If what is there at the beginning is not there at the end, and the same as what was there at the beginning, then evolution is a word with no meaning. Something must evolve itself, and that something, which is the end, must also be the beginning. It must be what moves itself to the end, and must be the end which is the ‘because’ of the motion. Evolution must evolve itself to itself, progress itself, go forward to a goal which is itself, development brings out nothing but what was in, and brings it out, not from external compulsion, but because it is.

And further, unless what is at the end is different from that which was at the beginning, there is no evolution. That which develops, or evolves itself, both is and is not. It is, or it could not be it which develops, and which at the end has developed. It is not, or else it could not become. It becomes what it is; and, if this is nonsense, then evolution is nonsense.
Evolution is a contradiction; and, when the contradiction ceases, the evolution ceases. The process is a contradiction, and only because it is a contradiction can it be a process. So long as progress lasts, contradiction lasts; so long as anything becomes, it is not. . . For the process is a contradiction, and the solution of the contradiction is in every sense the end of the process.

(Ethical Studies, p. 191 note)

When dialectical philosophy refers to the identity of opposites, it is such concrete and dialectical identity that is meant. Metaphysical thinking, with its absolute opposition between identity and difference, is incapable of understanding this notion. If opposites are merely identical, abstractly identical, then there is no difference between them and they are not, after all, opposites. On the other hand, if opposites are merely distinct, absolutely different, then they are not united and there is no identity between them.

In a useful passage at the beginning of Essay 2, (p. 26f), Norman portrays dialectics as an approach to the problem of opposites in contrast to these two metaphysical alternatives. He shows how dialectics can be seen as a response to one of the basic and traditional problems of philosophy: the problem of the relation of opposites; that is, ‘the problem of the relation between certain very fundamental opposed concepts such as mind and matter, essence and appearance, universal and particular, society and individual, freedom and necessity, and so on’ (p. 26). The dialectical approach to these problems, he argues, must be distinguished from two other ways of dealing with them, which have been characteristic of traditional philosophy: reductionism and dualism.

Reductionism is the attempt to reduce one opposite to the other; it is, as Norman puts it, the philosophy of ‘nothing but’. ‘Mind on this view is “nothing but” a certain kind of behaviour of matter. . . Universals, from a reductionist point of view, are “nothing but” ideas abstracted from many particulars’ (p. 26). Reductionism thus, in effect, collapses one opposite into its other; or, in other words, it identifies opposites in an abstract and absolute fashion and denies their difference. Dualism, on the other hand, emphasizes the difference of opposites—but in an equally abstract and absolute fashion, to the exclusion of their identity or unity: it ‘makes a complete separation between the opposed terms and apply[es] them to two different worlds’ (p. 26).

Norman then goes on to portray dialectics as an approach to the problem of opposites which seeks to avoid these traditional alternatives of reductionism and dualism. By contrast, it stresses the interrelation, the interconnection, the unity of opposites. Thus, describing Hegel’s account of the opposed categories of universality and particularity, Norman writes, ‘In place of both the reduction of universals to particulars and the separation of universals from particulars, he is asserting the mutual interdependence of particular and universal. He speaks of this also as the identity of opposites’ (pp. 28–9). Unfortunately, however, this theme is not sustained as Norman’s account proceeds; and it is soon submerged and contradicted as the main line of his argument emerges. For above all, as I have already explained, he is concerned to distinguish and separate a “conceptual” and an “empirical” dialectic; and it soon becomes clear that these opposites, at least, are regarded by him as exclusive ones, in a dualistic and not dialectical fashion.

4 The idea that conceptual questions and empirical ones are absolutely distinct and separate from each other has been a standard part of contemporary philosophical orthodoxy in the English-speaking world, and a standard part of the justification for the analytical approach in philosophy. Philosophy is supposed to consist of a body of purely conceptual truths—timeless, logical truths, the product of pure reason a priori—distinct and separate from the sciences, which involve the empirical investigation of reality. These ideas are commonplaces of contemporary British philosophy and they are adopted uncritically by Norman. According to dialectics, however, such categories are abstract and
incapable of grasping the concrete nature of things. The idea of a purely 'conceptual' and 'atemporal' realm of logical and philosophical truth is a piece of metaphysical mythology: real, concrete philosophy and logic—the actual thoughts of actual people—are not like this. Just look and see! Is this what philosophy is like? Is contemporary British philosophy—or any other sort of philosophy for that matter—made up of pure \textit{a priori} logical truths which are timeless valid? Of course not! In reality, philosophy is an arena of disagreement, of conflict, of contradiction; it develops and changes; it has a \textit{history}—and a history, moreover, in which the 'purely conceptual' outpourings of most contemporary British philosophers are destined to have only a transitory and obscure place.

In the same way, logic too has a history: it is not a set of abstract and eternal principles, but something concrete and changing, embodying conflict and contradiction within it. Indeed, the very debate in which Norman and I are here engaged is an example of a debate within logic; and such debates have been an essential feature of the history of logic since its beginnings. It is incorrect to think of even logic as a body of 'eternal', merely 'conceptual' truths. Engels sees it in a concrete and dialectical fashion when he writes:

\begin{quote}
The science of logic is... like every other, an historical science, the science of the historical development of thought... The theory of the Laws of Thought is by no means an 'eternal truth' established once and for all, as philistine reasoning imagines to be the case with the word 'logic'. Formal logic itself has been the arena of violent controversy from the time of Aristotle to the present day. (\textit{Dialectics of Nature}, p. 43)
\end{quote}

There is, no doubt, an important sense in which philosophy and logic are 'conceptual' studies. They concern the ways we think about the world, the concepts we use and their systematic interrelations. But these concepts and their logical relations to each other do not arise from nowhere, purely \textit{a priori}—they do not 'drop from the skies'. The concepts we use, the theories that are evolved to interpret the world, reflect the empirical world and our experience of it. Philosophy is necessarily based on and relative to the empirical knowledge of the day: it is relative and changing in character, not eternal and absolute.

In particular, philosophy develops and changes in relation to the sciences. This becomes incomprehensible on the view that conceptual and empirical questions, philosophy and science, are absolutely distinct and separate from each other, each quietly existing within its own limits. It is absolutely impossible to understand the history either of philosophy or of the sciences unless one recognizes their interaction and interpenetration: they are concrete opposites which exist in unity, and it is only in these terms that their development can be properly understood. Thus philosophy and science each develop in relation and interaction with the other, and, in the course of their development, each is transformed into the other. \textit{Empirical and scientific knowledge is summarized and articulated at the most general level as philosophy}; and, in turn, \textit{philosophical theory guides and determines further practical and scientific work}.

Norman, however, wants to argue that philosophy and the sciences are distinct and separate from each other. According to him, the empirical results of the sciences are one thing and their philosophical interpretation another. To illustrate this he cites the example of Darwin’s theory:

\begin{quote}
The empirical facts of evolutionary development are not in themselves sufficient to establish the dialectical world-outlook. We can see this if we think of the differing philosophical uses that are made of Darwinian evolutionary theory. The religious dualist or vitalist, for example, might say that... 'science cannot explain everything'. It can reveal only the physical continuity, whereas the emergence of 'life', the infusion of 'soul', remains a mysterious qualitative leap which no scientific explanation can comprehend. At the other extreme, we are familiar with those crude misuses of evolutionary theory which seek to persuade us that, since the human species has evolved from other animal species, it cannot be essentially different from those other species; man just \textit{is} a 'naked ape' or whatever...
\end{quote}

(p. 156)
First of all, no one, to my knowledge, has claimed that the empirical facts of evolutionary developments are 'sufficient' to establish the dialectical world-outlook. The philosophy of dialectic is a logical theory, I have argued, which is universal in its application. The theory of evolution is, at best, only a particular, though perhaps a particularly significant, instance and confirmation of it.

But, more importantly, it is clear that here Norman is looking upon Darwin's scientific discoveries as a mere assortment of empirical facts, and on the theoretical or philosophical interpretation they are given as something independent and separate from them. However, science is not merely empirical: it involves more than mere fact gathering, it essentially involves also the theoretical consolidation—the interpretation and explanation—of the facts. In particular, Darwin's evolutionary theory is not a mere collection of facts, it is also and equally essentially a theory which relates together and explains those facts. For this reason, Darwin's theory of evolution cannot be given any arbitrary philosophical or theoretical interpretation at will. The very examples which Norman gives can be used to illustrate this point. Thus, to cling on to the idea of a 'mysteries leap' is to deny the Darwinian account of evolution altogether; and so too is the reductionist equation of different species one with the other.

The facts of experience and how we interpret them are not entirely separate and independent of each other as Norman suggests. It may indeed be the case, for example, that there are still people in our society who maintain that the earth is flat—but this goes no way towards showing that the 'flat earth theory' is one among different possible interpretations of the facts (except perhaps in a purely formal and trivial sense of 'possible' interpretations). For surely (and I am certain that Norman would agree) we know that the earth is not flat, and therefore the flat earth theory is not a real possibility at all. How do we know this? Through experience—the repeated experience of many generations, beginning with the practical experience of astronomers, geographers, explorers, etc., gained at the beginning of our era, when increasing trade and commerce were beginning to extend the horizons of Europe—experience that has eventually been summed up and generalized theoretically, through a laborious process, by a long succession of scientists, philosophers and other thinkers.

Moreover, although the flat earth theory is (and always has been) a false theory, it is not an arbitrary one. For the concepts we use, the interpretations and theories we employ, reflect the empirical world and our experience of it, even when they are false. Thus the flat earth theory reflects the way in which we initially and immediately experience the world, and it is a theory that we have little cause to question until our experience of the world widens and deepens. In particular, the medieval belief in the flatness of the earth reflected the relatively circumscribed and limited horizons of that society.

Exactly the same points apply in the Darwinian case. Neither Darwin's theory, nor the religious or reductionist theories which it challenges, have sprung from nowhere. The concepts of divine creation, the soul and so forth, do not arise purely a priori; nor can they be criticized and replaced purely a priori, but only on the basis of experience. For although these are ultimately philosophical questions, they are by no means thereby merely 'conceptual' ones. The theory of the divine nature of man and his possession of a rational soul is not, as Norman implies, merely one possible interpretation among others of the facts of biology, a possible 'way of seeing things'. On the contrary, the whole trend of scientific discovery during the last century and more has been against such views: not only Darwin's work, but also that of Marx and of Freud. They are views which have become increasingly untenable: in field after field they have been shown to be false views. And they have been shown to be false as a result of experience and empirical investigation, repeated many times and eventually summed up theoretically and philosophically. This is a historical, not a merely logical, process. This at least is the materialist view; and Engels, as usual, puts it clearly. 'The certainty that no spiritual world
exists besides the material world is the result of a long and wearisome investigation of the real world, inclusive of the products and processes of the human brain’ (Anti-Dürring, p. 464).

So far, I have been concentrating on Norman’s account of philosophy. However, before leaving this topic, it should be noted that essentially similar views are to be found elsewhere as well. In particular, since Althusser’s philosophy is currently the focus of so much attention, and since it is so often presented as ‘the latest thing’ in fashionable left-wing theory, it is worth noting that many of Althusser’s ideas about the nature of philosophy and its relations to the sciences are old and familiar ones, at least on this side of the Channel. For Althusser’s account of philosophy embodies many of the ideas which I have criticized in Norman’s work, and which have for long been the stock-in-trade of analytical philosophy. For example, Althusser too insists on a rigid and absolute distinction between philosophy and the sciences. He says: ‘Philosophy is not a science. Philosophy is distinct from the sciences’ (Lenin and Philosophy, p. 50). Furthermore, he maintains that ‘philosophy has no real history’ (ibid. p. 56); and that ‘philosophy strictly speaking has no object in the sense that a science has an object’ (ibid. p. 57). These views, too, are familiar from the analytical account of philosophy, which regards philosophy as an a priori and purely conceptual study, thus ahistorical and lacking an object—all that is novel is Althusser’s dogmatic (and absurd) insistence that these are the views of Marx and Lenin (had they but realized it). Of course, in many fundamental respects Althusser’s picture of philosophy and the analytical account differ greatly; but in these general views they agree. It is a depressing spectacle to see many on the left in this country, having started the work of emancipating themselves from these ideas in their analytical form, now succumbing to them again in their new ‘structuralist’ guise. For, if the philosophy of Marx and of Lenin, if the philosophy of dialectic means anything in this area, it surely means the very opposite of all these

Althusserian assertions. Philosophy is not a merely ‘conceptual’ study—it has an object. Just like the sciences, it is the study of, the knowledge of, actuality—the real and objective world. Furthermore, it has a history; and, although it is indeed true that philosophy is distinct from the sciences, it is equally the case that philosophy and science exist in unity, and that their nature and history can be understood only in these terms. This is what I have been arguing above.8

5

The philosophy of dialectic, I have been arguing, is founded upon the concept of contradiction, the idea of the unity of opposites; and it cannot, therefore, be understood within Norman’s theoretical framework, which involves a rigid and absolute distinction between conceptual and empirical matters, between the sphere of reason and the empirical world of things. Hegel’s assertion of the identity of these opposites takes the notorious form of his statement that ‘What is rational is actual and what is actual is rational’ (Philosophy of Right, Preface, p. 10).

As Engels says, ‘No philosophical proposition has earned more gratitude from narrow-minded governments and wrath from equally narrow-minded liberals’ (Ludwig Feuerbach, p. 361) and no philosophical proposition can ever have been less well understood or more widely misinterpreted. It would take me too far out of my way to try to sort out all this here; but, in the present context, what needs to be stressed is that these propositions do not constitute the simple and crude form of reductionist idealism that they are made out to be by Norman and by a great number of other writers. ‘Why should Hegel have held such a strikingly implausible view?’ asks Norman.

The answer lies in his philosophical idealism, and in fact in the worst and least plausible aspect of his idealism, that aspect in which it becomes a kind of pantheism. Hegel thinks that the structure of reason which he is unfolding in [his] works... is not just the structure of human thought. Reason is itself an independent force... at work in the world... This is
why he is able to identify the conceptual dialectic and the temporal dialectic. It is also why he is wrong to do so. If it is his idealism that enables him to identify the two, then in rejecting his idealism, as indeed we must, we have to recognize a distinction between the two kinds of dialectic. We have to treat them as independent of one another.

(p. 41)

This is an old and familiar story—it has been repeated by almost every writer in this field. But nevertheless, it is a false story, a caricature, indeed, of Hegel’s philosophy. Hegel’s idealism is supposed to consist of the simplest and crudest form of what Popper calls the ‘philosophy of identity of reason and reality’ (Conjectures and Refutations, p. 331). Of course, it is true that Hegel is an idealist (he proclaims the fact himself), but not of this metaphysical and reductionist kind. When Hegel talks of the identity of reason and reality, and of the identity of other concrete opposites, as I have already stressed, he does not mean an abstract, lifeless, metaphysical, formal identity, $A = A$, which excludes all difference. On the contrary, he means that these opposites exist in concrete unity, in which they contradict, interact, interpenetrate and pass into each other. Hegel certainly says that ‘reason is in the world’ (Enc Logic, sec. 242 Z), but he equally recognizes the difference and opposition—the contradictions—between reason and reality.

But furthermore, it is an elementary misunderstanding (though, again, a very common one), to think that the assertion of the identity of reason and reality, thought and being, constitutes idealism, and that the opposite view is materialism. What this argument fails to appreciate is that the ‘philosophy of identity’ is not peculiar to idealism, but is equally a feature of all thorough-going materialist philosophies. Contemporary philosophical materialism in the English-speaking world even goes under the name of ‘the identity theory’.

“The rational is actual”—surprising as it may at first seem, this is also the view of materialism. The rational is actual—yes, it is embodied in the human brain. Materialism is the view that everything in the world is matter in motion. In particular, consciousness, reason and subjectivity in general are particular—complex and highly developed—forms of matter in motion; they are nothing independent. As Engels says:

The material, sensuously perceptible world to which we ourselves belong is the only reality; and... our consciousness and thinking, however super-sensuous they may seem, are the product of a material, bodily organ, the brain. Matter is not a product of mind, but mind is itself merely the highest product of matter. This is... materialism.

(Ludwig Feuerbach, pp. 372–3)

A different idea of materialism is implied in Norman’s account; and what is merely implied by Norman is stated quite baldly by Colletti. ‘In order to be a form of materialism, “dialectical materialism” must affirm the heterogeneity [i.e. distinction—S.S.] of thought and being’ (Marxism and Hegel, p. 104). In other words, for Colletti, the identity of thought and being is idealism, and their distinction constitutes materialism. All Colletti here succeeds in demonstrating is that he does not know what materialism is. The mere distinction of thought and being, reason and reality, is not materialism, but, as I have emphasized already, dualism. Materialism, on the contrary, involves the assertion of the unity of thought and being. Colletti has the idea that materialism is the thesis that there is matter independent of thought. But genuine materialism is a stronger philosophy than this; it says also: there is no thought independent of matter. Colletti confuses materialism with dualism; but, in fact, materialism is the opposite of dualism and explicitly a rejection of the abstract and absolute distinction between thought and being which dualism involves.

Consistent materialism, then, just as much as idealism, involves the assertion of the unity of thought and being, of reason and reality; and the difference between them does not turn on this issue, contrary to what Norman and Colletti suggest. Norman, however, again in the company of a host of
other writers, rejects materialism as I have just explained it, as ‘reductionist’ and ‘mechanistic’. Engels, he says:

makes the same mistake as Hegel, in a converse form. Hegel’s mistake was to assimilate materialism and historical change to a conceptual progression. Instead of separating the one from the other, Engels, guided by Marx’s phrase about ‘standing the dialectic on its feet’, simply assimilates the dialectic of concepts to material change.

(Hegel’s Phenomenology, p. 126)

However, just as Hegel’s dialectical idealism must not be confused with metaphysical and reductionist forms of idealism, so too dialectical materialism must not be lumped together with metaphysical and reductionist materialism. Dialectical materialism certainly involves the assertion of the unity of thought and being—all the major Marxist philosophers agree about this—but again, as with Hegel, this identity must be understood as a concrete and dialectical, not metaphysical and abstract, identity; an identity which does not exclude difference. As Marx himself says, ‘Thinking and being, to be sure, are thus distinct but at the same time in unity with one another.’ (‘Private Property and Communism’, 1844 Manuscripts, p. 138). It is in these terms that one must understand Marx’s and Engels’ claim to have ‘inverted’ Hegel’s dialectic. Of course, if you regard Hegel’s philosophy as a reductionist and metaphysical idealism, then the result of ‘inverting’ it will be a reductionist and metaphysical materialism. However, this is not the character of Hegel’s idealism and nor, therefore, of Marx and Engels’ inversion of it.

Marx’s claim to have ‘inverted’ Hegel’s dialectic has been the subject of much discussion in recent years, a good deal of it generated by Althusser’s work. It is therefore worth noting that Althusser’s account of this inversion is precisely the same as Norman’s.

For Hegel, material life (civil society, that is, the economy) is merely a Ruse of Reason... So here... we have a way of inverting Hegel which would apparently give us Marx. It is simply to invert the relation of the terms (and thus to retain them)... While for Hegel, the politico-ideological was the essence of the economic, for Marx, the economic will be the essence of the politico-ideological... For Hegel’s ‘pure’ principle of consciousness... we have substituted another simple principle, its opposite: material life, the economy.

(For Marx, p. 108)

Althusser then goes on to argue, with Norman, that the Marxist dialectic, conceived as the mere ‘inversion’ of Hegel’s dialectic, would be a reductionist and mechanistic philosophy:

The logical destination of this temptation is the exact mirror image of the Hegelian dialectic—the only difference being that it is no longer a question of deriving the successive moments from the Idea, but from the Economy, by virtue of the same internal contradiction. This temptation results in the radical reduction of the dialectic of history to the dialectic generating the successive modes of production, that is, in the last analysis, the different production techniques. There are names for these temptations in the history of Marxism: economism and even technologism.

(idem.)

Thus, he dismisses any talk of ‘inversion’ as an ‘untenable fiction’:

For all its apparent rigour, the fiction of the ‘inversion’ is now clearly untenable. We know that Marx did not retain the terms of the Hegelian model of society and ‘invert’ them. He substituted other, only distantly related terms for them. Furthermore, he overhauled the connexion which had previously ruled over the terms.

(For Marx, p. 109)

First of all, it is not Marx who does this, but Althusser himself. He, indeed, substitutes ‘other, only distantly related terms’ for all the dialectical terms of Marx’s philosophy: or, in other words, he revises Marxism. And this is just what he is doing here. For all M. Althusser’s self-proclaimed ‘rigour’ and ‘reading’ of the ‘text’, it must be pointed out that Marx does talk of inverting Hegel’s dialectic and explains what he
means by this in clear terms, and so does Engels (in Ludwig Feuerbach, ch. 4, for example). Whoever the ‘we’ are, who ‘know that Marx did not... “invert”’ Hegel, they evidently exclude Marx and Engels themselves! It seems, then, that this ‘text’ as least, stands in need of some re-reading, in less tendentious terms. What Marx actually says is as follows:

My dialectical method is not only different from Hegel’s, but is its direct opposite. To Hegel the life process of the human brain, i.e. the process of thinking, which, under the name of ‘the Idea’ he even transforms into an independent subject, is the demiurgos of the real world, and the real world is only the external, phenomenal form of ‘the Idea’. With me, on the contrary, the ideal is nothing else than the material world reflected by the human mind, and translated into forms of thought... The mystification which dialectic suffers in Hegel’s hands, by no means prevents him from being the first to present its general form of working in a comprehensive and conscious manner. With him it is standing on its head. It must be turned right side up again, if you would discover the rational kernel within the mystical shell.

(Capital, vol. I, p. 20)

What Marx is saying here is quite clear and straightforward. He is contrasting his own method, as a materialist one, with Hegel’s idealism; and he is doing so in just the same way as Engels contrasts materialism with idealism in Ludwig Feuerbach:

The great basic question of all philosophy, and especially of more recent philosophy, is that concerning the relation of thinking and being... Philosophers were divided into two great camps according to their answer to this question. Those who asserted the primacy of mind over nature and, in the last analysis, therefore, assumed some kind of creation of the world... formed the camp of idealism. The others, who regarded nature as primary, belonged to the various schools of materialism.

(pp. 369-70)

Hegel’s idealism thus consists in the fact that he makes thought or reason primary: the creator, as Marx says, of the real world. For example:

The procession of mind or spirit from Nature must not be understood as if Nature were the absolutely immediate and the prior, and the original posit-
between these opposites is not just one way; rather, there is interaction and reciprocity.

Similarly, although Marxism involves a materialist account of history, this must not be regarded as a form of ‘economism’ or ‘technologism’. Marx’s conception of history is certainly a materialist one: he is quite definite about this: ‘It is not the consciousness of men that determines their being, but on the contrary it is their social being which determines their consciousness’ (Preface to A Contribution to the Critique of Political Economy, p. 363). The ideological and political superstructure is the product and the reflection of the economic and technological base of society. Again, however, the determination of the superstructure by the base must not be emphasized in a one-sided fashion: the superstructure also reacts back upon and influences the economic base. The interaction is a dialectical and a reciprocal one; although, as Engels says, ‘ultimately’ and ‘in the last instance’ it is material and economic forces which prevail.

Engels particularly stressed the non-reductionist, non-economistic character of historical materialism in the series of letters he wrote on the subject towards the end of his life. For example, to H. Starkenburg (25 Jan. 1894), he wrote:

Political, juridical, philosophical, religious, literary, artistic, etc., development is based upon economic development. But all these react upon one another and also upon the economic basis. It is not that the economic situation is cause, solely active, while everything else is only a passive effect. There is, rather, interaction on the basis of economic necessity, which ultimately always asserts itself... So it is not, as people try here and there conveniently to imagine, that the economic situation produces an automatic effect. No. Men make their history themselves, only they do so on the basis of actual relations already existing, among which the economic relations, however much they may be influenced by the other—the political and ideological relations, are still ultimately the decisive ones, forming the keynote which runs through them and alone leads to understanding.

(Selected Correspondence, p. 549)

Historical materialism is not mere mechanical economic determinism. It recognizes the independent, ‘relatively autonomous’ influence of the political and ideological levels in history. Nevertheless, according to Engels, it is the economic level which ‘ultimately’ and ‘in the last instance’ is the decisive one.10 These phrases are vague ones, and it would undoubtedly be preferable if the phenomena they describe could be specified in more precise and definite terms. However, economic forces are not always and absolutely primary; nor are the political and ideological levels always and absolutely secondary. Such rigid, dogmatic, metaphysical, either/or dichotomies are, here as elsewhere, positively a hindrance to understanding the concrete nature of things.

Althusser, who is forever congratulating himself on the ‘rigour’ of his reading of Marxism, repeatedly talks of ‘determination in the last instance’. So it is necessary to point out that the mere repetition of a vague phrase does not make it any more precise. And, surely, these phrases are not entirely rigorous, not entirely precise ones. However, until they can be replaced by, or rather developed and expanded into, more rigorous and more precise ones, we will have to make do with them. Better, a relatively vague theory which reflects and illuminates reality, than a rigid and narrow dogmatism which does not.

Historical materialism, then, seeks to understand society in a concrete and dialectical fashion. It rejects what Hegel calls the ‘dogmatic Either/Or of the metaphysical understanding’. It is not a reductionist philosophy, and thus Engels sums up his criticisms of those who would interpret it thus by saying:

What these gentlemen all lack is dialectics. They always see only here cause, there effect. That this is a hollow abstraction, that such metaphysical polar opposites exist in the real world only during crises, while the whole vast process goes on in the form of interaction—though of very unequal forces, the economic movement being by far the strongest, most primordial, most decisive—that here everything is relative and nothing absolute—this they never begin to see. As far as they are concerned Hegel never existed...

(Letter to C. Schmidt; 27 October, 1890: ibid. p. 507)
On the other hand, we must also be careful to avoid the equal and opposite error. Althusser, for example, is also concerned to distinguish Marxism from ‘economism’ and ‘technologism’, and to insist that history must not be reduced to a purely economic level. ‘Marxist history “relapses” into the ideological concept of history... by flattening the sciences, philosophy and ideologies into the unity of the relations and forces of production, i.e., in fact, into the infrastructure’ (Reading Capital, p. 138). And in order to avoid such reductionism Althusser insists on distinguishing political and ideological ‘practices’ from economic ‘practice’. However, it soon becomes clear that Althusser is yet another ‘gentleman’ who ‘lacks dialectics’ and who would like to imagine that ‘Hegel never existed’; for he stresses the distinction of these various aspects of the social totality in a thoroughly one-sided and undialectical fashion. For example:

We can argue from the specific structure of the Marxist whole that it is no longer possible to think the process of the development of the different levels of the whole in the same historical time. Each of these different ‘levels’ does not have the same type of historical existence... We can and must say: for each mode of production there is a peculiar time and history, punctuated in a specific way by the development of the productive forces; the relations of production have their peculiar time and history, punctuated in a specific way; the political superstructure has its own history...; philosophy has its own time and history...; scientific formations have their own time and history, etc.

(Reading Capital, p. 99)

These extravagant and ridiculous claims are reminiscent of the worst and most narrow feature of bourgeois academic thought. It is nothing new for politics and history to be studied as though they had nothing to do with economic developments, or for philosophy, the arts or the sciences to be studied as though they each had ‘their own time and history’—as though they were each independent realms, hermetically sealed off from other social developments—all that is new here is for a ‘Marxist’ to be saying these things. For Marx, in all his writings, maintains the opposite of all this: that developments in the superstructure of society, including philosophy, science and art, do not have ‘their own time and history’ but, on the contrary, are social and historical products, and ultimately, in the last instance, depend upon the economic and technological basis of society. It is no doubt ‘symptomatic’ that Althusser’s ‘reading’ of Capital seems to have passed over passages like the following, for example, about the history of technology:

Technology discloses man’s mode of dealing with Nature, the process of production by which he sustains his life, and thereby also lays bare the mode of formation of his social relations, and of the mental conceptions that flow from them. Every history of religion even, that fails to take account of this material basis, is uncritical. It is, in reality, much easier to discover by analysis the earthly core of the misty creations of religion, than, conversely, it is, to develop from the actual relations of life the corresponding celestialized forms of those relations. The latter method is the only materialistic and therefore the only scientific one.

(Capital, vol. 1, pp. 272-3 note)

To be sure, in saying this it is necessary to guard against mechanistic and reductionist accounts, and not to stress the influence of the economic base in an exclusive and one-sided way. But to do so by constructing a rigid and impassable gulf between base and superstructure, and between philosophy and the sciences and the arts, after the fashion of Althusser and bourgeois academic thought, is simply to embrace the opposite error. For this is just to replace an abstract, one-sided and undialectical identification of such opposites with an equally abstract, one-sided and undialectical distinction (or differentiation) of them. Dialectics rejects both of these either/or alternatives. To paraphrase Marx (see above p. 86): superstructure and base, to be sure, are thus distinct but at the same time in unity with one another.

The relation of such dialectically related opposites to each other is often described as one of ‘relative autonomy’, and this is another phrase that Althusser is fond of repeating. The political and ideological levels are, he tells us, ‘relatively
autonomous’ from the economic level. However, the whole emphasis of his writings, beyond this phrase, is on the distinction of these ‘practices’ and of their supposed ‘objects’. The entire weight of his criticism falls on what he regards as various forms of reductionism. He does not criticize dualism, with its one-sided emphasis on the distinction of opposites, for the simple reason that it is at the basis of his own outlook. And because of this, like Norman, he remains blind to dialectics, materialist or otherwise.

To sum up then: in this section I have tried to show that both Hegel and Marx maintain that all things are contradictory and a unity of opposites. Although both recognize and distinguish a dialectic of thought and a dialectic of things, a conceptual dialectic and an empirical dialectic; unlike Norman, neither Hegel nor Marx makes this distinction into an absolute gulf, neither denies the relations and unity of these (and related) opposites. Hegel and Marx are dialectical philosophers, whereas Norman’s outlook is basically dualistic, and it is one he shares with many other contemporary philosophers. In the next two sections of this essay, I want to go on to show, in detail, how this dualistic approach, by keeping such opposites separate and apart from each other, makes abstractions of them, and is incapable of grasping them in concrete and dialectical terms. In particular, I want to show how Norman’s dualism leads him to give an abstract and undialectical account both of the world of nature and of the sphere of reason, the world of man.

II The World of Nature

I Let us look, then, at Norman’s account of the natural world. This he gives under the heading of the ‘empirical dialectic’.

To start with, it is a noteworthy feature of Norman’s work that he talks of an ‘empirical dialectic’—a dialectic of nature—at all. No idea could be more unfashionable. The overwhelming majority of writers upon Hegel’s philosophy and upon the philosophy of Marxism, whatever their other differences, are agreed in rejecting any such idea. Anyone at all familiar with the academic literature on dialectics will be acquainted with the view that any talk of an ‘empirical dialectic’ is a metaphysical monstrosity—an extravagant product of the further reaches of Hegelian mysticism. The idea of a dialectic of nature, it is said, involves attributing human rational processes to mere things; it is ‘idealism’, ‘pan-logicism’, ‘anthropomorphism’ and ‘pantheism’. We must regard the dialectic as a purely conceptual and logical matter, which applies only to the processes of thought, or only within the sphere of human consciousness, human subjectivity or human rationality, etc., but not in nature as such. This argument is put in various different terms and in various different forms, but the fundamental idea expressed is the same: an absolute and exclusive distinction between the realm of human reason, thought and activity on the one hand, and the realm of nature on the other. This view is to be found in the work of Sartre, Merleau-Ponty, Schmidt, Colletti, Popper and a host of other writers.

Such dualism also underlies Norman’s account of dialectics, as I have tried to show. On the other hand, Norman wants to recognize dialectical processes in the empirical world. In this respect, he is swimming right against the tide of dualist thought. But in the end it is the tide that wins; for a dialectical and concrete understanding of the natural world is impossible to achieve within the framework of dualism. On the contrary, dialectical philosophy involves a thorough-going critique and rejection of the account of the natural world implied by dualism. When properly understood, there is nothing absurd or extravagant in the dialectical account of nature. Quite the opposite: it provides a basic logical framework for understanding the phenomena of nature in their concrete reality; and it is rather the dualistic picture of the natural world which is revealed as metaphysical, abstract and incompatible with modern natural science. This is what I shall try to show in this section.
Here, Norman refers to logical contradiction, opposition within a unity, as ‘self-contradiction’, which he distinguishes from the mere ‘contradiction’ of natural forces. But this mere ‘contradiction’ is nothing but a verbal subterfuge, it is not really contradiction at all. It refers to a conflict between two things which remain distinct and separate from each other; a conflict which, as Norman himself emphasizes, is not internal, not within a unity; that is to say, it refers to a conflict which is not contradictory. Indeed, what Norman describes under the heading of ‘contradiction’ here is exactly what Colletti describes, with greater accuracy, as ‘non-contradictory opposition’. And so, just like Colletti, Norman ultimately rejects the idea of internal contradictions in things and seeks to restrict the phenomenon of internal contradiction to the sphere of reason.

Natural forces and other natural phenomena are related to each other only externally—there can be no contradictions in nature. Oppositions in the natural world have a merely external and non-contradictory character. This is the standard argument against the idea of a dialectic of nature, and it is repeated over and over again in the literature. For example, Schmidt writes, ‘Before the existence of human societies, nature could only achieve polarities and oppositions of moments external to each other; at best interactions, but not dialectical contradictions’ (The Concept of Nature in Marx, p. 60).

According to Merleau-Ponty:

It is true that Engels took over from Hegel the bold idea of a dialectic in nature. But, apart from its being the most fragile part of the Hegelian heritage, how is the dialectic in nature to survive idealism? If nature is nature, that is, exterior to us and to itself, it will yield neither the relationships nor quality needed to sustain a dialectic.

(‘Marxism and Philosophy’, p. 126)

And Sartre gives essentially the same picture of the natural world when he writes:

A material object is animated from without, is conditioned by the total state of the world, is subject to forces which always come from elsewhere, is
composed of elements that unite, though without interpenetrating, and that remain foreign to it. It is exterior to itself... Nature... is externality. ('Materialism and Revolution', p. 196)

Dialectical philosophy does indeed criticize this picture of the natural world. According to dialectics, internal contradiction, self-contradiction—in other words, contradiction properly so-called—is the essential nature of all concrete and determinate things. This is the view defended by all the major dialectical thinkers. Mao, for example, puts it very clearly when he writes, 'The fundamental cause of the development of a thing is not external but internal; it lies in the contradictory within a thing. There is internal contradictoryness in every single thing, hence its motion and development' ('On Contradiction', p. 26).

In the case of opposed natural forces, the essential point which dialectics makes is this: opposed forces are not merely distinct, they are also united. To be opposed, they must meet. Armies are joined in battle. A force considered merely in and of itself is an unreal abstraction which cannot exist. All real forces must act on something, they must be manifested. And this manifestation implies, precisely, the existence of an opposing force—a reaction and a resistance. Action and reaction must be equal and opposite.16

At this point, the natural inclination of metaphysical thinking is to regard the reaction, the opposing force, as something which is merely external to the first force and only contingently related to it. For example, according to Sartre:

When science speaks of forces that are applied to a point of matter, its first concern is to assert their independence; each one acts as though it were alone. When science studies the attraction exerted by bodies upon one another, it is careful to define the attraction as a strictly external relationship, that is to reduce it to modifications in the direction and speed of their movements.

('Materialism and Revolution', p. 192)

This is how Norman sees the matter as well: each force is regarded as existing merely in itself and as being related to the other only externally. We are thus back to the atomistic and Humean conception of the world: 'everything is what it is,' a mere given positive existence, a given fact, 'loose and separate', as Hume says, from every other.17

This is the opposite of dialectics, as Hegel explains:

To materialized conception existence stands in the character of something solely positive, and quietly abiding within its own limits: though we also know, it is true, that everything finite (such as existence) is subject to change. Such changeableness in existence is to the superficial eye a mere possibility, the realization of which is not a consequence of its own nature. But the fact is, mutability lies in the notion of existence, and change is only the manifestation of what it implicitly is.

(Enc. Logic, sec. 92 Z, p. 174)

What Hegel says here is vitally important for an understanding of dialectics. It applies to all things, including natural forces and other natural phenomena. Thus a force does not 'quietly abide' within itself, rather it is 'inherent unrest': it manifests itself, passes into the objects it acts upon, passes into its effects—becomes its manifestation and its opposite. And it does so because it is internally contradictory. This is the essential nature of force.

There is nothing 'mystical' or 'idealistic' in talking in this way of internal contradictions in things. To say that there is internality in nature is not to attribute human subjectivity and agency to it, for internal opposition is not confined to the realm of human thought and activity. Forces and things in nature are not merely 'loose and separate': there is system, totality, process and necessity in the world. All these imply essential relations, internal relations, between things; and it is the task of science to discover them.

As things first appear to us, they may indeed seem to be 'loose and separate'—only externally and accidentally conjoined and related. But this is merely how they are in their immediacy. Science must penetrate beyond such initial appearances. It consists precisely in discovering and revealing the necessities in things, the internality of their relations. Thus the initial and immediate appearance of mere exter-
nality in things, is revealed by science as appearance—as the merely external and outward manifestation of an inner necessity and unity—as the particular instances of an underlying law.

Furthermore, to talk of contradictions in things is to imply that there is negativity in the empirical world. Again, such talk is anathema to dualism, which seeks to exclude negation from nature and to confine it to the world of man. Schmidt, for example, writes that ‘negativity emerges only with the working subject’ (The Concept of Nature in Marx, p. 195); and Norman agrees ‘in not wanting to posit “contradictions” and “negations” between natural processes’ (p. 163). So, according to this view, the natural world is merely positive in character; and dualism thus gives the same account of the natural world as that given by positivistic, metaphysical materialism.

Dialectics, by contrast, maintains that nothing is simply and solely positive. Nothing has mere being. This is the essence of dialectics; it is the first and fundamental thought of Hegel’s Logic. Pure being—mere positivity—is an abstraction which is equivalent to pure nothingness. All concrete and determinate being is a unity of being and nothing, of positive and negative aspects. This is what Hegel argues in the famous opening sections of his Logics. He says, ‘Neither in heaven nor on earth, neither in the world of mind nor of nature, is there anywhere such an abstract “Either-Or” as the understanding maintains. Whatever exists is concrete, with difference and opposition in itself’ (Enc. Logic, sec. 119 Z, p. 223). All concrete and determinate things contain negation: they are finite, limited and perishable. This is Hegel’s view:

The foundation of all determinateness is negation (as Spinoza says, omnis determinatio est negatio). The unreflecting observer supposes that determine things are merely positive and pins them down under the form of being. Mere being however is not the end of the matter: it is... utter emptiness and instability besides.

(Enc. Logic, sec. 91 Z, pp. 171–2)

Furthermore, the negation in things is internal to them according to Hegel. ‘A thing is what it is, only in and by reason of its limit. We cannot therefore regard the limit as only external to being which is then and there (i.e. determinate)’ (ibid. sec. 92 Z, p. 173). The negativity of things—their limitations, their finitude and transience—are thus inherent in them, an essential part of their nature. To quote Hegel again:

The limitations of the finite do not merely come from without... its own nature is the cause of its abrogation... and by its own act it passes into its counterpart. We say, for instance, that man is mortal, and seem to think that the ground of his death is in external circumstances only... But the true view of the matter is that life, as life, involves the germ of death, and that the finite, being radically self-contradictory, involves its own self-suppression...

We are aware that everything finite, instead of being stable and ultimate, is rather changeable and transient; and this is exactly what we mean by that dialectic of the finite, by which the finite, as implicitly other than what it is, is forced beyond its own immediate or natural being to turn suddenly into its opposite.

(ibid. sec. 81 Z, pp. 148–50)

All things are ‘changeable and transient’. Perhaps, as Norman says, ‘this, by itself, looks incredibly banal’ (p. 42). However, before dismissing it on this account, it is worth reflecting that a banality is better than a falsehood and that Norman’s own account of the natural world involves him in denying the changeableness and transience of things. For if things really were, as he maintains, simply and solely positive—mere beings which excluded all negativity—then they would endure for ever, since nothing could ever impinge on them, negate them and bring them to destruction. True and consistent atomism—the logical end-point of the account of nature given by Norman—recognizes this, and proclaims that the atoms of the world can neither be created nor destroyed. It thus seeks to reduce all qualitative change in the material world to merely quantitative changes. As Engels says:

The ‘mechanical’ conception... explains all change from change of place,
all qualitative differences from quantitative ones, and overlooks that the relation of quality and quantity is reciprocal, that quality can become transformed into quantity, just as much as quantity into quality, that, in fact, reciprocal action takes place. If all differences and changes of quality are to be reduced to quantitative differences and changes, to mechanical displacement, then we inevitably arrive at the proposition that all matter consists of identical smallest particles, and that all qualitative differences of the chemical elements of matter are caused by the spatial grouping of those smallest particles.

(Dialectics of Nature, p. 253)

Moreover, Hegel is not to be dismissed as merely ‘indulging in a joke’ (p. 163) in the following justly celebrated passage from the Phenomenology of Mind, when he says that even the animals know of the negativity and transience inherent in concrete things. On the contrary, with the most superb irony he is expressing a fundamental aspect of dialectical thought.

We can tell those who assert the truth and certainty of the reality of sense-objects that they should go back to the most elementary school of wisdom, viz. the ancient Eleusian Mysteries of Ceres and Bacchus, and that they have still to learn the secret meaning of the eating of bread and the drinking of wine. For he who is initiated into these Mysteries not only comes to doubt the being of sensuous things, but to despair of it; in part he brings about the nothingness of such things himself in his dealings with them, and in part he sees them reduce themselves to nothingness. Even the animals are not shut out from this wisdom but, on the contrary, show themselves to be most profoundly initiated into it; for they do not stand idly in front of sensuous things as if they possessed intrinsic being, but, despairing of their reality, and completely assured of their nothingness, they fall to without ceremony and eat them up. And all Nature, like the animals, celebrates these open Mysteries which teach the truth about sensuous things.

(Phenomenology of Spirit, M, p. 65; B, pp. 158–9)

According to dialectics, then, the truth about all concrete things is that they are contradictory and contain negative and positive aspects within themselves. They are in a process of change and development; and this movement does not come to them only from outside, but is the result of their own inner contradictions. No matter how firmly it is embedded in the

common sense of most contemporary philosophers, dialectics rejects the metaphysical view of the natural world, which is shared both by dualism and by metaphysical materialism, according to which material things are merely positive, inert, passive and without internal contradiction, and that motion and change come to them only from outside.

I have already noted that such a metaphysical view of the natural world is at the basis of Hume’s account of causality, according to which all things are ‘loose and separate’- self-contained and related only externally to other things. More generally, however, it is important to see that this metaphysical account of the natural world portrays it in purely mechanical terms. For it is characteristic of the mechanical outlook to regard things as, in Hegel’s words:

*Complete and self-subsistent objects* which consequently, even in their relation, stand to one another only as *self-subsistent* things and remain *external* to one another in every combination. This is what constitutes the character of mechanism, namely, that whatever relation obtains between the things combined, this relation is one *extraneous* to them that does not concern their nature at all, and even if it is accompanied by a semblance of unity it remains nothing more than composition, mixture, aggregation and the like.

(Science of Logic, p. 711)

Just such a mechanistic picture of the world is implied by Norman’s account of the ‘empirical dialectic’, and such a picture of the natural world is a characteristic part of dualism. To be sure, dualism is also critical of mechanistic thinking, but only in a one-sided and partial way. For it criticizes the mechanistic approach only as it is applied to the sphere of human thought and activity, but it remains entirely uncritical of the mechanistic approach as an account of the natural world. Thus it is typical to find the natural sciences regarded as essentially and necessarily positivistic and mechanistic in their approach. It is true even that many natural scientists would agree with Norman in describing their methods and assumptions in such terms (although, of course, there is disagreement and controversy among scientists on such
questions). However, the views of natural scientists on such philosophical questions should not be taken as final and decisive, as Marx warns when he observes that

the weak points in the abstract materialism of natural science, a materialism that excludes history and its process, are at once evident from the abstract and ideological conceptions of its spokesmen, whenever they venture beyond the bounds of their own speciality.

(Capital, vol. I, p. 373 note)

According to dialectics, then, the mechanical approach, by itself, is inadequate to serve as a basis even for the understanding of the phenomena of nature in their concreteness, and thus incapable of serving as a philosophical basis for the natural sciences. The failure to grasp this clearly is perhaps the greatest obstacle to understanding the dialectical materialist account of Nature.

Engels, as we have seen, defines materialism as the view that

the material, sensuously perceptible world to which we ourselves belong is the only reality. . . Our consciousness and thinking, no matter how suprasensuous they may seem, are the product of a material, bodily organ, the brain. Matter is not a product of mind, but mind itself is merely the highest product of matter.

(Ludwig Feuerbach, pp. 372–3)

Such statements are seized upon by his critics as proof positive that Engels is a mechanical materialist, but such accusations are confused and groundless. There is nothing necessarily mechanistic in the view that consciousness is a product of matter—except on the assumption that matter is merely mechanical in nature; and this assumption is one that Engels explicitly rejects and argues against at length.08 Or again, to say that thinking is a product of the brain is materialism certainly—but not all materialism is mechanistic in character, and no one has a clearer appreciation of this fact than Engels.

According to materialism, all things are matter in motion.

All things thus have a mechanical aspect: all things are mechanical. But this is not the end of the matter, for no concrete thing is merely mechanical. As Engels says:

All motion includes mechanical motion, change of place of the largest or smallest portions of matter, and the first task of science, but only the first is to obtain knowledge of this motion. But this mechanical motion does not exhaust motion as a whole. Motion is not merely change of place, in fields higher than mechanics it is also change of quality.

(Dialectics of Nature, p. 252)

Mechanics describes only the most abstract aspect of the motion of matter. As Engels says, it 'knows only quantities' (Dialectics of Nature, p. 252). Thus, for example, even the physical and chemical properties of things cannot, strictly speaking, be reduced to merely mechanical processes. They require the independent laws and sciences of physics and chemistry for their description.

Mechanics—in the wider or narrower sense—knows only quantities, it calculates with velocities and masses, and at most with volumes. . . . In physics, however, and still more in chemistry, not only does continual qualitative change take place in consequence of quantitative change, the transformation of quantity into quality, but there are also many qualitative changes to be taken into account whose dependence on quantitative change is by no means proven. That the present tendency of science goes in this direction can be readily granted, but does not prove that this direction is the exclusively correct one, that the pursuit of this tendency will exhaust the whole of physics and chemistry.

(ibid. p. 252)

Hegel, upon whom Engels relies heavily in his account of these questions, is particularly clear on this. The mechanistic approach, he writes:

is a shallow and superficial mode of observation, one that cannot carry us through a connection with Nature and still less in connection with the world of Mind. In Nature it is only the veriest abstract relations of matter in its inert masses which obey the law of mechanism. On the contrary the phenomena and operations of the province to which the term 'physical' is applied, such as the phenomena of light, heat, magnetism, and electricity,
cannot be explained by any mere mechanical processes, such as pressure, impact, displacement of parts, and the like.

(Enc. Logic, sec. 195 Z, p. 337)

Furthermore, even physics and chemistry are ultimately as insufficient as mechanics to provide a complete basis for the description of natural processes; for it is not the case even that all natural processes can be understood in merely physical or chemical terms. As matter becomes organized in increasingly complex ways, so new, different, higher laws come into operation and govern its activity; and new and distinct sciences are required for the understanding of their operation. Biochemical processes arise, organic processes develop, plants and animal organisms appear, evolutionary processes assert themselves. None of these can be described or explained in mere physico-chemical, let alone mechanical, terms.

Thus it is impossible to understand even the simplest organic and plant life in merely physico-chemical terms, never mind, for the moment, human life. No doubt the matter of plants is physical and chemical in character, and therefore governed by the laws of physics and chemistry. But one could not hope to describe the structure of a plant, or its growth, in these terms alone, not to mention the evolution of plant species, their distribution over the earth’s surface, etc. No doubt plants are made up of atoms and molecules which obey mechanical and physical and chemical laws; but the crucial point to understand is that plants and other forms of organic life are not merely mechanical or physico-chemical systems. In them different, higher—biological—laws also operate; and the mechanical and physico-chemical laws, although they continue to operate, in Hegel’s words, ‘cease to be final and decisive, and sink, as it were, to a subservient position’ (ibid. sec. 195 Z, p. 338). And Engels echoes this line of thought when he talks of the laws of mechanics being ‘pushed into the background by other, higher laws’ in chemical and organic processes. And so, despite the fact that physical and chemical and biological processes are also mechanical processes, it does not follow that the sciences of physics, chemistry and biology can all be reduced to mechanics as the mechanical philosophy implies.

And this is equally true of those sciences which study human historical and social activity. Human society and conscious human activity are the highest level yet attained of the organization of matter. Consciousness is the product of the human brain and the other material circumstances of human life—it does not exist in an irreducible void. This is Engels’ view and it is Marx’s view, it is the view of dialectical materialism; and there is nothing necessarily ‘mechanistic’, ‘reductionist’ or otherwise incorrect about it. It all depends upon how one regards the brain. The brain is a material organ, of course; but the matter of the brain is not merely mechanical, physico-chemical, or even merely physiological in character—it is also governed by evolutionary, psychological, historical and social laws. Human physiology, the brain etc., on the one hand, and human thought and social institutions, on the other, do not exist side by side, independent and external to each other as dualism implies. In reality, human consciousness and its material basis, including the brain, interpenetrate and exist in concrete unity. It is impossible to fully understand the human brain in purely materialism by its clear appreciation of this fact. The brain—and, more generally, human anatomy and physiology—are as materialism by its clear appreciation of this fact. The brain—and, more generally, human anatomy and physiology—are as mechanical, physico-chemical or even physiological terms; and dialectical materialism is distinguished from mechanical anatomy and physiology. Again, it is the supposedly ‘mechanistic’ philosopher Engels who states this most clearly. In his account of ‘The Part Played by Labour in the Transition from Ape to Man’ (included in Dialectics of Nature), he writes:

First, labour, after it and then with it speech—these were the two most essential stimuli under the influence of which the brain of the ape gradually
changed into that of man, which for all its similarity is far larger and more perfect. Hand in hand with the development of the brain went the development of its most immediate instruments—the senses. Just as the gradual development of speech is inevitably accompanied by a corresponding refinement of the organ of hearing, so the development of the brain as a whole is accompanied by a refinement of all the senses.

(Dialectics of Nature, p. 174)

And, in its turn:

The reaction on labour and speech of the development of the brain and its attendant senses... gave both labour and speech an ever-renewed impulse to further development. This development did not reach its conclusion when man finally became distinct from the ape, but on the whole made further powerful progress... This further development has been strongly urged forward, on the one hand, and guided in more definite directions, on the other, by a new element which came into play with the appearance of fully-fledged man, namely, society.

(ibid. pp. 174–5)

Dialectical materialism is not a reductionist or a mechanistic philosophy, and no one gives a clearer account of the differences than Engels. On the contrary, it is Norman, and those who think like him, who defend the mechanical account of matter. For, although Norman may resist the reduction of the human world to a mechanical level, he then proceeds to reduce the processes of the natural world in just this fashion. That is to say, in his account of the ‘empirical dialectic’ he adopts a picture of the material world based solely on mechanics and physics—the account of matter to be found in metaphysical materialism—and in opposition to this mechanical world of nature, and irreducible to it, he puts the world of man: his consciousness, his reason, his activity. This is dualism, not dialectics; and what I have argued is that it leads to a metaphysical and abstract conception of the material world, and thus that it is incapable of serving as a philosophical basis for the natural sciences. In the next section I will go on to argue that dualism is equally incapable of comprehending the world of man in concrete terms, and thus that it is equally incapable of providing a satisfactory philosophical basis for the social and historical sciences.

III The Sphere of Reason

In opposition to the world of nature, there stands the sphere of reason, the world of man. These two worlds are sharply distinguished by Norman and by dualism. As we have just seen, Norman portrays natural things as external to each other and determined by mechanical causal principles. It is otherwise with human phenomena:

We need to distinguish between conflicts in the natural world and conflicts in human thought and activity. One and the same force cannot be in conflict with itself... But one and the same person can hold conflicting beliefs, and it is in such a case that we can talk of self-contradiction.

(pp. 59–60)

The human world is portrayed by Norman as the sphere of internality and subjectivity. Human thought and human intentional activity are governed, not by merely external causes, but by rational and logical principles. The world of man is the world of reason. Norman gives his main account of this under the heading of the ‘conceptual dialectic’. This involves a purely logical and ‘atemporal’ progression from one concept to another, which is supposed to occur in logical argument and in rational thought. However, Norman goes on to argue that reason is not confined to the realm of thought alone, it can also be manifested in human activity and social institutions: ‘behaviour, like beliefs, can be rationally assessed’ (p. 61). And this because, just as with beliefs, according to Norman, when a person’s actions contradict each other, ‘it is not just a conflict between opposing forces, it is also a conflict within a single potentially rational agent. And it is just for that reason that we can describe the behaviour as self-contradictory, self-defeating, irrational’ (p. 61). So, for Norman, reason is manifested both in thought and in action. But in either case the logical law of non-contradiction is its constitutive principle; for Norman argues that contradiction functions as a ‘critical’ and ‘evaluative’ concept. If thought or actions are found to be contradictory, they must be ‘criticized’—contradictions ‘cannot be accepted as they
stand' on pain of irrationality. Reason, in other words, in both its theoretical and practical forms, is portrayed as consistency and conformity to the law of non-contradiction. It is within this framework that Norman wants to interpret the dialectical account of human thought and human activity. Indeed, the general aim of his argument is to reconcile dialectics with the traditional logic of non-contradiction. 'The two are compatible' (p. 47), he maintains. By contrast, I shall argue in this section that it is impossible to understand dialectics in these terms. On the contrary, the philosophy of dialectics, properly understood, implies a profound and thorough-going critique of the law of non-contradiction and of the other traditional laws of logic; and it thus involves a fundamental critique of the dualist accounts of the spheres of human thought and of human activity, which are ultimately based upon them.

The Law of Non-Contradiction as a Law of Thought

1

According to Norman, then, contradictions must be excluded from nature; they can exist only in the sphere of reason, the world of man. But even here, as I have indicated, it soon becomes clear that Norman's major concern is to maintain the law of non-contradiction. Even though contradictions can exist in the realm of reason, they ought not to: they 'cannot be accepted', they must be 'criticized'. Hegel perfectly describes this sequence of thoughts as follows:

In the first place, contradiction is usually kept aloof from things, from the sphere of being and of truth generally; it is asserted that there is nothing that is contradictory. Secondly, it is shifted into subjective reflection by which it is first posited in the process of relating and comparing. But even in this reflection, it does not really exist, for it is said that the contradictory cannot be imagined or thought. Whether it occurs in actual things or in reflective thinking, it ranks in general as a contingency, a kind of abnormality and a passing paroxysm of sickness. (Science of Logic, pp. 439-40)

Dialectics is the very opposite of this, as Hegel goes on to say:

In general, our consideration of the nature of contradiction has shown that it is not, so to speak, a blemish, an imperfection or a defect in something if a contradiction can be pointed out in it. On the contrary, every determination, every concrete thing, every Notion, is essentially a unity of . . . contradictory moments. (ibid. p. 442)

Dialectics is explicitly and consciously a philosophy of contradiction, by which it understands a unity or conjunction of opposites. Hegel's philosophy is founded on this notion and so is dialectical materialism. Thus, in his Logic, Hegel argues that everything concrete is in a process of motion, development, and change—a process of 'becoming' which he analyses as a unity of being and nothing. He argues that it is in the nature of concrete things to be both particular and general, to contain both identity and difference, to have both qualitative and quantitative, positive and negative aspects, etc. All concrete things are the unity of such opposites, and this is what Hegel means when he says, 'Everything is inherently contradictory . . . this law expresses the truth and the essential nature of things' (Science of Logic, p. 439).

The concept of contradiction, however, plays 'a considerably more subordinate role' (p. 47) in Norman's account, as he himself says. According to him, the contradictions which Hegel and other dialectical philosophers seem to be doing their best to assert are merely apparent. When Hegel talks of 'contradiction' he does not really mean it. Such talk is, Norman tells us, 'unnecessary and misleading' (p. 29). All Hegel's apparently contradictory statements can be 'elaborated'—reformulated and rephrased—so as to remove the appearance of contradiction that they initially present. Thus Norman writes:

The statement that one and the same thing possesses opposite characteristics looks like a self-contradictory statement. However, . . . in all these cases the same thing can possess opposite characteristics because they
are ascribed to it under different aspects, from different points of view.

(p. 54)

And so, in all these cases, ‘the contradiction... can be elaborated so as to be stated in a proposition which is not logically self-contradictory’ (p. 55).

In other words, the contradictory characteristics of things must be segregated and kept apart: they must be located in separate and distinct ‘aspects’. This whole operation of separating aspects is undertaken in order to render Norman’s account of dialectics compatible with the law of non-contradiction. Thus, for example, when Hegel asserts that everything is both universal and particular:

we have to elaborate the assertion in such a way as to remove the logical contradiction... If every thing is both a universal and a particular there must at any rate be some way in which we can distinguish between the respect in which it is a universal and the respect in which it is a particular. I therefore suggest that, Hegel’s own assertions notwithstanding, we can best make sense of his notion of ‘contradiction’ if we take it to be something weaker than strict logical contradiction.

(pp. 30–1)

However, it is impossible to separate the particularity and the universality of things into different ‘aspects’ as here suggested. It is no use merely asserting that there ‘must be’ some way in which this can be done—the question is: How? If particularity and universality could be separated like this the result would be bare particularity on one side, and a disembodied, abstract universality on the other. But either, when isolated and considered merely in itself and apart from its unity with the other, is an unreal abstraction, as Hegel argues in the opening sections of the Phenomenology of Mind. Particularity and universality, according to dialectics, are opposites which exist in unity. Elsewhere, Norman shows himself to be aware of these arguments. Thus, for example, early in the same essay, he gives the following account of Hegel’s argument:

(p. 28)

Hegel... is showing that one can have sensory acquaintance with particulars only in so far as the particular is also a universal and is characterized by means of some universal concept, that is, only in so far as it is connected with other particulars of the same kind and contrasted with particulars of other kinds. Now notice what Hegel is doing here. He is not replacing reductionism with dualism. He is not saying that we have acquaintance with particulars and also have knowledge of universals. He is saying that we have acquaintance with particulars only in so far as this is at the same time a knowledge of universals.

This account of Hegel’s argument seems to me to be a correct and useful one. Unfortunately, however, it is not long sustained by Norman; for it involves the assertion of contradiction, as Norman goes on to point out. ‘To discover that one and the same thing is both a particular and a universal is, for Hegel, to recognize the existence of contradiction’ (idem.). Now, as we have just seen, Norman insists that such contradictions must be ‘elaborated’, the particularity and the universality of the thing must be segregated into different ‘aspects’. The effect of this is to render Hegel’s philosophy into just the sort of dualism which a moment before it was said to have avoided. And because of his insistence on ‘elaborating’ the assertions of dialectical philosophy in order to make them compatible with the law of non-contradiction, Norman ends up by denying the dialectical concept of contradiction, the concept of the unity of opposites, which is the fundamental principle of dialectical thought.

By revising dialectics in this fashion, Norman succeeds only in reducing it to a series of superficial paradoxes and ‘puzzles’ which, while they may no longer offend against orthodox logic, at the same time have been robbed of any significance, point or purpose. For example:

Heraclitus... in one of the versions of the river-paradox, says: ‘We step and do not step into the same river’. I would... want to insist that this cannot be true without elaboration, and that what Heraclitus means is that the river
is the same river in the sense of following the same course although the water is always different. But this formulation would be much less striking, and hence less thought-provoking.

(p. 50)

Less striking and less thought-provoking it certainly would be! Indeed, if this were all that Heraclitus's famous paradox amounted to, it would be quite unclear why he should have chosen to express himself in such a roundabout way, and altogether mysterious why his remark should have had any enduring interest. No, this saying is not as trivial as Norman's interpretation would have it. Norman wants to divide the river into separate 'aspects'. The course of the river is presumed to be one aspect, separate and distinct from the water flowing through it. But in reality, a river's course is not something absolutely separated and detached from the water flowing through it. On the contrary, a river is the unity of these two aspects. And the course of a real, concrete river—one that you can step into—is continuously changing, as one learns in elementary geography: cutting valleys, forming bends, and so on; and this is due to the action of the water flowing in it. A concrete river is the unity of these different and opposite aspects.

When dialectical philosophy talks of 'contradiction', it really does mean contradiction. Dialectics does not consist of a series of trivial 'paradoxes'. On the contrary, it is a philosophical theory about the nature of reality, according to which all concrete things are contradictory and changing. It claims more for its propositions than that they should be 'thought-provoking' and 'striking', it claims that they are true.

The opposite characteristics of things cannot be segregated into separate 'aspects' according to dialectics, for the fundamental principle of dialectical thought is that in concrete reality opposites exist in unity. As Lenin says:

*Dialectics* is the teaching which shows how opposites can be and how they happen to be (how they become) identical—under what conditions they are identical, transforming themselves into one another—why the human mind should take these opposites not as dead, rigid, but as living, conditional, mobile, transforming themselves into one another.

*(Philosophical Notebooks, p. 109)*

The metaphysical, dualist attitude towards opposites, by contrast, is to keep them separate and apart from each other, and this is what Norman does. For the dialectical idea of the concrete unity, the interaction and interpenetration, of opposites, he tries to substitute the idea of the mere 'interdependence' of opposites. The opposite aspects of things are recognized to exist, to co-exist and even to be 'dependent' upon each other, but that is all. Each still remains isolated in itself, separate from and indifferent to other things. Hegel describes this approach in the following terms:

> Though ordinary thinking everywhere has contradiction for its content, it does not become aware of it... It holds [the] two determinations over against one another and has in mind only them, but not their transition, which is the essential point and which contains the contradiction.

*(Science of Logic, p. 441)*

According to dialectics, concrete opposites are not merely 'interdependent': they do not merely co-exist side by side in lifeless isolation from each other. They interact, interpenetrate and pass into each other. This is the dialectical account of the unity of opposites, the dialectical concept of contradiction.28

2

Norman rejects the dialectical idea of contradiction, the idea of a concrete unity of opposites; and, as he makes clear, he is led to do so by his adherence to the law of non-contradiction and the other traditional laws of logic. So now let us examine the attitude of the philosophy of dialectic towards these.

According to its defenders, the law of non-contradiction is a self-evident and unquestionable principle which governs all rational thought. But as soon as one looks in detail at the accounts that are given of this 'law' one gets a different picture. Instead of universal agreement, there has been
argument and controversy about the meaning and status of this law even among its defenders.

Some philosophers argue that contradictory statements are meaningless, and that nothing can be stated in the form of a contradiction. These philosophers are thus inclined to dismiss the dialectical assertion of contradiction as ‘meaningless’ and ‘absurd’. Popper, for example, argues in this way (and I have criticized his position already in Essay 1). Norman, however, wishes to give a different account of the law of non-contradiction. As we have already seen, he is prepared to acknowledge that assertions of contradiction can ‘convey a great deal’, that they can be ‘significant’, ‘fruitful’ and ‘effective’ (p. 50). But for all that, a self-contradictory statement cannot be true. ‘The existence of the contradiction shows that there is something wrong with the theory—it cannot be correct as it stands.’ (p. 51). And Norman ends up by insisting on the law of non-contradiction in the same terms as Popper, when he writes:

To abandon the law of non-contradiction is to abandon the very idea of rational argument. It is to abandon, in particular, the idea of entailment and deductive argument... If one supposes that the idea of ‘contradictions in reality’ requires one to accept that self-contradictory propositions can be true as they stand, one is lying dialectic to irrationalism. And such an alliance would be disastrous.

(pp. 49–50)

Now, as I have already argued, dialectics is specifically and deliberately a philosophy of contradiction. Dialectical philosophy does, therefore, reject the idea that the law of non-contradiction and the other traditional laws of logic are necessary principles of reason and laws of thought. Hegel is quite explicit about this. He denies that the law of non-contradiction functions as a law of thought; he argues that concrete and real thought—thought that has a content and which is attempting to grasp truth—whether in the form of science, mathematics, philosophy, logic or whatever, is never solely determined by what he calls ‘these so-called laws of thought’. Indeed, as Norman acknowledges, he is positively scathing about the claims made by traditional logic for such laws. He ridicules the claim that these laws are self-evident and unquestionable principles of reason. For example, about the ‘law of identity’ (that everything is identical with itself, $A = A$) he says:

It is asserted that the maxim of identity, though it cannot be proved, regulates the procedure of every consciousness, and that experience shows it to be accepted as soon as its terms are apprehended. To this alleged experience of the logic-books may be opposed the universal experience that no mind thinks or forms concepts or speaks in accordance with this law, and that no existence of any kind whatever conforms to it. Utterances after the fashion of this pretended law (A planet is—a planet; Magnetism is—magnetism; Mind is—mind) are, as they deserve to be, reputed silly. That is certainly a matter of general experience. The logic which seriously propounds such laws and the scholastic world in which alone they are valid have long been discredited with practical common sense as well as with the philosophy of reason.

(Enc. Logic, sec. 115, p. 214)

All this is intended to apply equally to the law of non-contradiction, as Hegel makes clear. The assurances that ‘contradictions cannot be accepted as they stand’ and that the law of non-contradiction governs all rational thought are commonplace of traditional logic; but when we leave the realm of the logic books, as Hegel says, and look instead at the way real, concrete thought proceeds, it becomes clear that this law is far from being sovereign and supreme.

For example, the view that scientific method is founded upon the law of non-contradiction is argued by Popper. He maintains that when a scientific theory is contradicted by observations, then it has been ‘refuted’—contradicted and falsified—and it should be abandoned. But the actual method of real scientists is not like this, as a study of the history of science shows. As Kuhn has argued, no theory is merely ‘refuted’ by confrontation with contradictory facts. Theories are not merely abandoned in the face of counter-instances. A scientific theory serves a purpose, it serves to explain a certain
aspect of reality. If it is shown to be defective, it must then be superseded and replaced by a new theory which is more adequate to that task—it cannot simply be scrapped. Until a scientific theory is superseded, according to Kuhn, the scientist will hang on to it, even while recognizing and acknowledging certain counter-instances. These are treated as what Kuhn calls ‘anomalies’; that is to say, as contradictions which are accepted as they stand within the theory.  

It is certainly true that the presence of such ‘anomalies’ within a theory is a source of tension and a motive for change and development. This is just the role given to contradictions by Hegel and other dialectical thinkers; but they do not necessarily lead to the immediate rejection of the theory on these grounds alone. If a scientist really rejected his theory (or his observations) at the first sign of contradiction, so far from being in accordance with the laws of logic and the necessary principles of reason and so on, this behaviour would be the epitome of irrationality and the abandonment of science.

Indeed, no scientific theory which has ever existed conforms to this so-called ‘law of thought’, since all concrete and really existing theories contain anomalies and contradictions within them. The difference between good theories and bad ones is not, therefore, simply a matter of whether or not they are contradictory, but rather of how adequately the contradictions a theory contains are handled and comprehended. The aim of a new theory is to overcome the defects and anomalies of the old one, of course. But this is not simply a matter of eliminating contradictions, as Norman, Popper and other adherents to the law of non-contradiction suggest. According to Hegel, when contradictions and anomalies are discovered in a theory we must go on to discover their ground. Moreover, to discover the ground of a contradiction is not to eliminate it, nor is it to deny it by separating its antagonistic elements into separate ‘aspects’. It is rather a matter of locating each aspect as a ‘moment’ within a larger totality or unity, which includes them both. In this way, when the contradiction is resolved into its ground, the contradiction, the antagonism between the different aspects is preserved, and included in this ground or unity. It is not removed, rather it is comprehended and understood.

But it is not only in the area of science that it turns out to be a myth that the law of non-contradiction is a necessary law of thought. The same is true even of mathematics. For example, the theory of the calculus, as it was developed and used from the time of Newton and Leibniz right into the nineteenth century, was based upon contradictory notions of the ‘infinitesimal’ and of the ‘infinite’. Furthermore, these contradictions were fully recognized and known to the mathematicians and philosophers of the time. But this did not lead these thinkers to regard the calculus as ‘falsified’ and ‘refuted’, or to abandon it as ‘incoherent’ and ‘irrational’, as they should have done if their thinking had been governed by this supposed ‘law of thought’. Fortunately, they were less dogmatic in their approach than the logic books would have had them be, and recognized that the calculus, despite being contradictory, contained an important measure of truth and practical value which, at that time, was inseparable from its contradictoriness. Had this not been so, Weierstrass and others would not have bothered to try to produce a more coherent formal theory of the calculus.

In philosophy, the view that the law of non-contradiction is sovereign and that it must govern philosophical method is a familiar aspect of current orthodoxy. And yet, it is equally acknowledged that there is hardly a philosopher in whose thought one cannot point to contradictions and inconsistencies. Faced with this fact, the metaphysical approach, so crudely displayed in much contemporary philosophy, is to reject such philosophies as ‘confused’ and ‘incoherent’ on this basis alone. It is not uncommon to find even the greatest philosophers treated in this fashion. The attempt is seldom made to investigate why these philosophers should have been led to formulate their ideas in a contradictory way. If the sole aim of philosophy were formal consistency and the avoidance of contradiction, then such an
approach would have its justification. However, philosophy is not a body of merely a priori, 'atemporally' valid, propositions, it is not a merely 'conceptual' study. It is the attempt to comprehend the concrete nature of reality in the most general theoretical terms. Mere logical consistency and the avoidance of contradiction is not the sole and necessarily overriding aim of philosophy. In other words, the law of non-contradiction is no more a law of philosophical thought than it is of scientific or mathematical thought. Moreover, the attempt to treat philosophy as though it had to be governed by this law is undoubtedly the basis of the academicism and scholasticism of so much recent philosophy. As Collingwood says:

To study a philosophy with the avowed intention, not of asking how adequately it deals with its subject-matter, but solely of looking for inconsistencies in its logical form, implies a withdrawal of interest from that which most interested the author, the subject-matter, and a consequent alienation of sympathy from him which makes it impossible to estimate his work fairly. Criticism of this kind will fall most hardly on writers who are genuinely grappling with the intricacies of a difficult problem. . . . it will be most lenient to those who, abandoning all attempt at profound or close study of the matter in hand, content themselves with a one-sided account of some partial aspect.

(Essay on Philosophical Method, p. 139)

Dialectical philosophy rejects the idea that the 'laws of logic' are necessary principles of reasoning that must govern all thought. Real thought is not like this. The idea of a non-contradictory theory is an abstraction. All real theories—the actual thoughts of actual people—are imperfect, limited, finite, relative, and thus contradictory. Mao has a good grasp of the real character of concrete thought when he writes:

The correct line is formulated with reference to the erroneous line, the two constitute a unity of opposites. . . . To say that mistakes can all be avoided [so that] there are only correct things, and no mistakes, is an anti-Marxist proposition. The problem lies in committing fewer mistakes and less serious ones. The correct and the erroneous are a unity of opposites, the theory of (the inevitability of mistakes) is correct. That there should be only correct things, and nothing erroneous, is without precedent in history, it amounts to denying the law of the unity of opposites.

(Mao Tse-tung Unrehearsed, p. 113)

No doubt the following objection will have been forming itself in the minds of many readers as I have been arguing that the law of non-contradiction is not the law of thought it is so often claimed to be. To point to contradictions in a theory, it will be objected, is none the less to point to defects and mistakes in it, as Norman maintains. The very examples I have cited seem to bear witness to this: anomalies show a scientific theory to be defective, contradictions in the notion of the infinitesimal mean that the old theory of the calculus is incoherent, and inconsistencies in a philosophy are unacceptable. Does this not show that Norman is right to argue that contradictions indicate a defect in a theory and that they cannot be accepted as they stand?

To this I would give the following reply. Contradictions are indeed a 'defect' in things, in the sense that they are a negative aspect which leads to change and development in things. Dialectics does not deny this. However, according to dialectics, contradiction is not a purely negative phenomenon, it also has a positive aspect. The metaphysical outlook and the traditional logic on which it is based sees contradiction as something merely negative. Dialectics, by contrast, recognizes both the positive and the negative side of contradiction, and denies neither.

In science, for example, new observations appear as a negative force, which eventually negate, undermine and destroy an old theory. But equally, we must recognize the positive side of such developments: that these new observations (and the inability of the old theory to accommodate them) provide the basis for a new theory, and give rise to progress and development in science. Popper, too, in his account of scientific method, focuses almost exclusively on the negative aspect, 'refutation'; and he entirely isolates this from the positive aspect, which he calls 'conjecture', and which he regards as a non-logical, merely 'psychologica}
process. But these two aspects should not be separated like this, for in reality they are united. New theories do not appear from nowhere, they are not the result of groundless 'conjectures'—they arise from experience and the problems it engenders for the old theory.

In a similar way, the proletariat appears as a negative and destructive force in relation to bourgeois society, but these very acts of destruction bring forth a new world. A new world, however, in which new contradictions arise and which is thus equally liable to development, change and eventual destruction. Socialism is another stage of world history, not its End.24

Thus, there is certainly a negative side to contradiction, and in this sense one may think of contradiction as a 'defect'. Because of their contradictions, things are undermined and negated, they perish and are superseded. However, in this supersession the 'defect' of contradicitoriness is not overcome. On the contrary, it is preserved. For the new thing that arises is a concrete result, not the abstract ideal of non-contradiction. It, too, contains antagonisms and tensions within itself, it too is a unity of positive and negative aspects, contradictory and subject to development and change.

'The grasping of the positive in the negative', says Hegel, 'is the most important aspect of dialectic' (Science of Logic, p. 56). To see only a 'defect' in contradiction is to isolate the negative, the destructive side of contradiction, and to ignore the fact that contradiction is the essential nature of things and at the root of all development, change and progress.

3
I have been arguing that dialectical philosophy rejects the claim of traditional logic that its principles are universal and necessary laws of thought. However, dialectical philosophy does not negate these principles altogether—absolutely and completely—and deny all validity to them, and it is important to stress this too. What dialectical philosophy says of these laws is that their validity is genuine but limited.

The traditional laws of logic specify the principles of deductive and formal reasoning. The utility and value of such reasoning, in science, mathematics, philosophy and other spheres of thought, is genuine and substantial; and dialectical thought does not deny this. In a proof or in a deductive argument, for example, a contradiction is a fault and an indication that the argument, as an argument, is invalid. However, it is vital to see that formal consistency is only one concern in an argument about a concrete subject-matter. It is never the only concern. For concrete and practical thought seeks not just to be valid, but to be true. And mere formal validity is no guarantee of truth, nor is formal invalidity a guarantee of falsehood. Formal logic, just because it excludes all considerations of content, is indifferent to truth.

In a purely formal and deductive argument, where the only concern is for consistency and formal validity, the law of non-contradiction holds true. A contradiction, the assertion of $P$ and not-$P$, the conjunction of opposites, in these circumstances, is invalid and cannot be accepted. But the minute the content of what is being said is also taken into account the situation changes. Now the contradiction becomes concrete: $P$ and its opposite now stand for determinate propositions, propositions with a definite content. In the abstract, one can never have any good reason for asserting a contradiction; but in concrete circumstances one may well have good reasons for asserting both sides of a contradiction. I have already cited examples from science and from mathematics which show this. Indeed, it is the most common experience in the world, whatever the logic books say. Concrete situations continually arise in which one has reason to believe both $P$ and not-$P$. One is in a dilemma, one comes up against problems. In such cases, one has reason to believe a certain thing, $P$, and one also has reason to believe its opposite, not-$P$; and so one has reason to believe a contradiction, both $P$ and not-$P$, and it would be irrational to believe anything else.

At this point the following objection can be anticipated: if a
situation arises in which we have reason to believe \( P \) and also at the same time reason to believe its opposite, not-\( P \), then it does not follow that we have reason to believe both \( P \) and not-\( P \). Rather, it will be said, what is rational in such circumstances is to ‘suspend judgment’, and to believe neither \( P \) nor its opposite. It seems to me that this line of argument is resorted to simply in order to preserve the law of non-contradiction from any questioning, and that it has little else to recommend it. For example, if a scientist were to ‘suspend judgment’ whenever he came upon an anomalous result, a contradiction between theory and practical observation, this would rapidly lead him to ‘suspend judgment’ not only in all scientific theories whatever (for none are without their problems and anomalies), but also to ‘suspend judgment’ even in his observations and empirical findings into the bargain.

According to Hegel, ‘The inadequacy of this way of thought, which leaves truth on one side, can only be made good by including in our conception of thought not only that which is usually reckoned as belonging to the external form but the content as well’ (Science of Logic, p. 39). On the other hand, if one persists in thinking of contradiction and logic in general always in purely formal terms, then indeed it is irrational to assert a contradiction, and dialectics with its logic of contradiction must remain incomprehensible. For dialectical logic is not a merely formal logic, it is a logic of content. And the dialectical concept of contradiction is not a mere formal abstraction, it is concrete and includes a determinate content.

**The World of Man**

So far, in this section, I have been considering and criticizing Norman’s account of the role of contradiction in thought, and, in particular, his view that the law of non-contradiction is a law of logic which must govern all rational thought. However, Norman goes on to argue that the law of non-contradiction applies not only to beliefs and thoughts, but also to human activity and social institutions. These, too, can contain contradictions, in the full logical sense. ‘Contradiction in the human sphere is not confined to beliefs. A person’s behaviour also may be self-contradictory.’ (p. 60). Thus, according to Norman, the law of non-contradiction functions not only as a law of thought, but also as a practical law. In so far as actions or institutions are contradictory, they too are to be characterized as ‘irrational’. For, in the practical sphere, just as in the sphere of thought, contradiction is ‘irrationality’: it ‘cannot be accepted’, it must be criticized and eliminated as something which ought not to exist. Thus, according to Norman, reason is not only theoretical but also practical, and in both cases the law of non-contradiction is its constitutive principle.

Human thought and human activity together make up the human world, the world of man. This is the sphere of reason and, as such, Norman insists that it must be distinguished from the empirical and natural world of mere things. Antagonisms and conflicts in the natural world are merely external oppositions of independent and distinct forces. In the case of contradictory beliefs, intentions and actions, however, what we have is not just a conflict between opposing forces; it is also a conflict within a single potentially rational agent. And it is just for that reason that we can describe the behaviour as self-contradictory, self-defeating, irrational.” (p.61). In this way Norman opposes the human world to the natural world and creates a sharp duality between them. For as we have seen, he portrays the natural world as the sphere of mere externality; whereas the world of man, by contrast, is described as the sphere of internality, subjectivity and reason. Human thought and activity are governed by rational principles and logical laws. The implication of this is that the human sciences, the social sciences, must be sharply distinguished and separated from the natural sciences. The natural sciences, according to
Norman, are deterministic, mechanistic and positivistic in their methods and assumptions. The social sciences, by contrast, must recognize the rational basis of the human world. People are not mere causal mechanisms, mere natural objects. They are free, conscious, rational and responsible agents: ‘persons not things’. Their thoughts and actions are determined by reasons not causes, and thus can be ‘rationally assessed’. The approach of the social sciences, for this reason, is not merely empirical and explanatory, but essentially ‘evaluative’ and ‘critical’.

This, in brief outline, is Norman’s account of the human world and of the social sciences. It is a dualistic and a humanistic account, and one which has been very influential in recent years. However, such ideas have nothing to do with dialectics. They are not to be found in the work of Hegel or of Marx. But they are familiar from another source, namely, Kant’s account of ‘practical reason’ and his moral philosophy. It is in Kant that we find the origin of the view that man is a rational being, ‘a person not a thing’, and that his beliefs and activities should be evaluated and criticized in accordance with the formal principle of non-contradiction. For morality, according to Kant, is ‘practical reason’, and it gives man ‘laws a priori as a rational being’ (Groundwork, p. 57). In this way, Kant argues for the ‘autonomy of morality’ and goes on to distinguish the ‘intelligible world’ of human freedom, rationality and consciousness, from the ‘sensible world’, the empirical world, studied by natural science.

Such ideas, as I have said, have nothing to do with the philosophy of dialectics. In particular, Marxism rejects the abstract and unhistorical picture of human nature which underlies this account of the human world. Human activity, social life, and history generally, cannot be understood as products of an eternal and absolute human nature (reason, consciousness, freedom, etc.) which every individual human being is supposed to possess simply in virtue of being human, a ‘person’ and not a mere ‘thing’. Such an account of human activity is not only (as I shall argue in a moment) undialectical and unhistorical, it is also an idealistic account of the world of man.

Man is not a mere mechanism, he is a rational and conscious being—certainly that is true. But it is equally true that human reason, consciousness, etc., are concrete material phenomena, that men are natural beings—things if you like (and here we must again recall that not all matter is merely mechanical in character)—and that to understand the human world we must not lose sight of its material basis. This, at least, is the view of materialism in general, and of dialectical materialism in particular.

The idea that the human world is distinct and separate from the natural world, and the idea that reason and consciousness are sovereign in human life, have gradually been discredited, first in one field, then in another, as the scientific understanding of nature and society has developed and increased. Thus, for example, Darwin stresses man’s continuity and unity with nature; and so does Freud, who also emphasizes man’s unconsciousness and the irrational and neurotic character of much of his activity. But it is in Marxism, in historical materialism, that we find the fullest, the most complete, the most highly developed account of human consciousness and reason and of human nature in general, and the definitive refutation of such idealism. ‘It is not the consciousness of men that determines their being, but on the contrary it is their social being that determines their consciousness’ (Preface to A Contribution to the Critique of Political Economy, Selected Works, Vol. I, p. 363). This, the fundamental tenet of historical materialism, is directly and explicitly a rejection of the idealist account of the human, the historical and social, world, which is a component part of dualism. Human activity is not the product of human reason, human consciousness, or any other aspect of a supposedly fixed and eternal human nature. On the contrary, human nature—human reason, consciousness, etc.—is itself the product of human economic, social and historical activity.
This materialist conception of history was first formulated by Marx and Engels in clear and explicit terms in the course of their polemics against the various schools of Young Hegelian thought in the 1840s, and repeatedly re-emphasized by them throughout their subsequent writings. And many of their arguments against the Young Hegelians are again relevant today. For example, Marx’s criticism of “True” socialism in the following passage from the *German Ideology* is put in terms which are perfectly applicable to Norman:

> "(German Ideology, p. 541)

The ["True"] socialist opposes to present day society, which is ‘based on external compulsion’, the ideal of true society which is based upon ‘the consciousness of man’s inward nature—i.e. upon reason’...

2 Althusser, too, has criticized the idea that history is the product of a fixed and eternal human nature. Indeed, he focuses his whole account of Marxism on the repudiation of such theories of human nature. Marxism, he tells us, is a ‘theoretical anti-humanism’, and it marks a complete ‘break’ with everything that has gone before. For all previous philosophies, according to Althusser, have been forms of ‘humanism’, based upon the idea (1) That there is a universal essence of man; (2) That this essence is the attribute of “each single individual” who is its real subject (For Marx, p. 228). Indeed, as Althusser sees it, the ‘category of the subject’ is a characteristic feature of all ‘ideology’ whatsoever:

Even if it only appears under this name (the subject) with the rise of bourgeois ideology, above all with the rise of legal ideology, the category of the subject (which may function under other names: e.g. as the Soul in Plato, as God, etc.) is the constitutive category of all ideology, whatever its determination (regional or class) and whatever its historical date—since ideology has no history.

(*Lenin and Philosophy*, p. 160, my emphasis)

So much for all previous philosophies. Althusser then goes on to portray Marxism as the absolute antithesis of all this: it is a ‘science’ and it represents a ‘total theoretical revolution’ (For Marx, p. 129), which consists in ‘the elimination of the concept of man as a central concept by the Marxist theory of social formations and of history’ (Essays in Self-Criticism, p. 200). Thus Althusser present Marxism as a ‘theoretical anti-humanism’ which rejects ‘the category of the subject’ and the concept of human nature or ‘essence’ altogether. Marxism, he maintains, portrays history as a ‘process without a subject’, by which he means that the ‘subject’ (human nature) is a mere product, a mere ‘construct’ of social and economic processes. It is not man who makes history, but history which makes man.

Marx shows that what in the last instance determines a social formation, and allows us to grasp it, is not any chimerical human essence or human nature, nor man, nor even ‘men’, but a relation, the production relation, which is inseparable from the base, the infrastructure. And in opposition to all humanist idealism, Marx shows that this relation is not a relation between men, a relation between persons, nor an intersubjective or psychological or anthropological relation, but a double relation: a relation between groups of men concerning the relation between these groups of men and things, the means of production. Naturally, human individuals are parties to this relation, but first of all only in so far as they are held within it... Marx considers men... only as ‘supports’ of relation, or ‘bearers’ of a function in the production process determined by the production relation.

(Essays in Self-Criticism, pp. 201–2)

I have tried to put clearly and simply what is presented by Althusser in the most vague, obscure, long-winded and pretentious fashion, all of which tends to conceal the fact that Althusser’s picture of the history of philosophy is really a very simple, not to say a simplistic one, and one that bears little relation to Marx’s. Marx does indeed say that human nature is ultimately the product and not the cause of history.
Marxism does indeed reject the idea of a fixed and eternal human nature, but not in the same way as Althusser. For again it must be stressed that Marxism is not a simple reductionist variety of social or economic determinism. Although Marx certainly says that human nature is a historical product, he equally stresses that men make history. For Marx it is never a matter of either/or in the way that Althusser would have it. Rather it is a case of both/and: social and economic conditions create men and men create social and economic conditions. 'Men make their own history, but they do not make it just as they please; they do not make it under circumstances chosen by themselves, but under circumstances directly encountered, given and transmitted from the past' (18th Brumaire, p. 247).26

Althusser worries away endlessly at this phrase (that 'men make their own history'), but the upshot of it all is that he simply denies this and asserts its direct and immediate opposite, namely, that history, particular social and economic circumstances, makes men. To assert just this, to the exclusion of its opposite, is to reduce Marxism to a crude metaphysical social determinism. So far from showing Marxism to involve a 'total theoretical revolution', this renders it into the sort of simplistic and one-sided view against which Marx warns in his famous Third Thesis on Feuerbach:

The Materialist doctrine that men are the products of circumstances and that, therefore, changed men are the products of other circumstances and changed upbringing, forgets that it is men that change circumstances and that the educator himself needs educating.

(Selected Works, Vol. II, p. 403)

Marxism does indeed reject humanism, with its abstract and unhistorical account of human nature, but not in the way Althusser does. For Marxism is not simply the mere negative, the absolute opposite of humanism; nor does Marx simply discard the notion of human nature or regard it as merely the direct and immediate product of historical conditions, as Althusser suggests. Marxism is not a humanist philosophy, but nor is it simply an 'anti-humanism'. It is not based on an abstract and unhistorical conception of human nature, but nor does it regard history as a 'process without a subject', it does not simply reject the notion of human nature altogether or reduce it to a mere social and ideological epiphenomenon. On the contrary, it attempts to provide a concrete, dialectical, historical and social account of human nature and its evolution in the course of human history.

3

The origins of this dialectical and concrete, historical account of human nature are to be found in Hegel's philosophy. To be sure, Hegel's account of human history and of the world of man in general, is, like Norman's, an idealist one.27 For Hegel, like Norman, also believes that 'reason has ruled in world history' (Reason in History, p. 13) and in the world of man.28 However, unlike Norman, he has a dialectical and historical conception of human nature and of the human world. He does not see the human world in a Kantian fashion, as 'autonomous' from the natural world; he does not absolutely oppose the human world as a sphere of abstract reason to the world of empirical nature; and so he does not portray human reason, consciousness and the other aspects of human nature as eternal characteristics which man possesses simply as man—abstractly and independent of his material and historical circumstances.

On the contrary, Hegel sees human reason etc., as something concrete which develops and changes, in the individual as he (or she) develops, and in the historical development of society. Human beings just as such are not all equally and absolutely 'rational beings'. Thus, for example, according to Hegel, a new-born child, merely as a human being, as a mere member of the human species, is no doubt a 'rational being' in that he possesses the capacities and faculties for rationality. But, at the same time, the rationality of the new-born child exists merely as capacities and faculties within him; his rationality is as yet merely a potentiality he has within him for further development. As Hegel says, 'The child is still in the grip of natural life, has only natural
impulses, is not actually but only potentially or notionally a rational being' (Philosophy of Mind, sec. 385 Z, p. 21). For Hegel, the processes of growth, development and learning are processes whereby the child realizes his rational capacities, makes them actual and concrete (and, in so doing, develops and extends them). To see reason as something which exists merely ‘in itself’, in every human being just as such, is to see it as a mere potentiality—a potentiality which so far lacks actuality:

If we stick to the mere ‘in-itself’ of an object, we apprehend it not in its truth, but in the inadequate form of mere abstraction. Thus the man, by or in himself, is the child. And what the child has to do is to rise out of this abstract and undeveloped ‘in-himself’, and become ‘for himself’ what he is at first only ‘in himself’—a free and reasonable being.

(Enc. Logic, sec. 124 Z, p. 232)

Thus human rationality is a human achievement, a product of human activity and development, it is not man’s simply ‘by nature’.

Moreover, the development of reason is a feature not just of individual development; according to Hegel human reason and human nature in general are essentially social in character and develop also historically. For it is one of the most important aspects of Hegel’s philosophy, and widely recognized as one of his great achievements in the history of philosophy, that he portrays all aspects of human life in social and historical terms. Thus, in his work, history, politics, ethics, law, art, religion and even philosophy and logic—all are conceived and described in concrete and dialectical, social and historical terms. And the same is true for human reason, consciousness and human nature in general. Indeed, Hegel maintains that history is the process of the ‘realization of reason’, not just in the idealistic and ultimately theological sense that human history is the product of (divine) rational purposes, but more importantly in the sense that human history is a process in which human reason and human nature are developed and realized to a progressively greater degree in human society and in human life.

Freed of its ‘mystical shell’ of theological idealism, these Hegelian ideas form a significant part of the ‘rational kernel’ of Hegel’s dialectic, which Marx and Engels inherited from ‘that mighty thinker’ and transformed into historical materialism. For, according to historical materialism, too, human nature is essentially concrete, historical and social in character, something which changes and develops as human society changes and develops. Marxism rejects the abstract and absolute conception of human nature which underlies humanist philosophies. But equally it rejects the idea that human nature is merely relative, a mere historical product, as Althusser would have it. Men make history and in turn history makes men. It is not a matter of either/or here—the relationship is a reciprocal and a dialectical one. This is what Marx implies in the following description of the labour process:

Labour is, in the first place, a process in which both man and nature participate, and in which man of his own accord starts, regulates, and controls the material reactions between himself and nature. He opposes himself to nature as one of her own forces, setting in motion arms and legs, head and hands, the natural forces of his body, in order to appropriate nature’s productions in a form adapted to his own wants. By thus acting on the external world and changing it, he at the same time changes his own nature. He develops his slumbering powers and compels them to act in obedience to his sway.

(Capital, vol. I, p. 177)

Man is not merely by nature a rational, conscious, free subject; nor is history a mere ‘process without a subject’. On the contrary, human rationality, consciousness, freedom, etc., are achievements of human history. Human history has been the process of the progressive development and, in a non-teleological sense, the realization of human freedom and reason, of the human ‘subject’, of human nature. This process is shown clearly in man’s progressive emancipation of himself from his merely natural condition, through his increasing practical ability to understand and control his environment: firstly his physical environment, through the development of
science and technology and its application in industry; but now also his social environment, through the scientific understanding of social processes and the application of this knowledge in the planned and rational organization of society.29

The development of human nature in this way is referred to by Marx as a process by which man ascends from the 'realm of necessity' to the 'realm of freedom'. He describes this process as follows:

The realm of freedom actually begins only where labour which is determined by necessity and mundane considerations ceases; thus in the very nature of things it lies beyond the sphere of actual material production. Just as the savage must wrestle with nature to satisfy his wants, to maintain and reproduce life, so must civilized man, and he must do so in all social formations and under all possible modes of production. With his development this realm of physical necessity expands as a result of his wants; but, at the same time, the forces of production which satisfy these wants also increase. Freedom in this field can only consist in socialized man, the associated producers, rationally regulating their interchange with nature, bringing it under common control, instead of being, ruled by it as by the blind forces of nature; and achieving this with the least expenditure of energy and under conditions most favourable to, and worthy of, their human nature. But it none the less still remains a realm of necessity. Beyond it begins that development of human energy which is an end in itself, the true realm of freedom, which, however can blossom forth only with this realm of necessity as its basis.

(Capital, Vol. III, p. 820)

Thus by progressively mastering the conditions of his life, both natural and social, man transforms and develops his own nature; and in doing so, as Engels says, he becomes 'marked off from the rest of the animal kingdom, and emerges from mere animal conditions of existence into really human ones' (Socialism: Utopian and Scientific, p. 153).

Contradiction as a 'Critical' Concept

In conclusion, I will look briefly at the view that contradiction functions as a 'critical' concept and that dialectics is thus a 'critical' philosophy. For, according to Norman, 'The law of non-contradiction formulates the idea that "contradiction" is a critical concept. To point to contradictions in a belief or theory is to criticize it, to show it to be defective.' (p. 48). And, as we have seen, Norman goes on to argue that the law of non-contradiction applies not only to beliefs and theories, but equally to human actions and social institutions. Reason for him is not only theoretical but also practical. In either case, however, the law of non-contradiction is its constitutive principle. For, as Norman explains it, reason is consistency and conformity to the law of non-contradiction. Contradiction is 'irrationality'. It is a 'defect'. In so far as it exists in human ideas, actions or social institutions, it 'cannot be accepted', it must be 'criticized', it is something which ought not to be. Here we have what Norman calls the 'critical' or 'evaluative' concept of contradiction.

The world, then, is to be 'criticized'—things ought not to be as they are. And if we ask: what is the basis of this 'criticism'?—the answer is: the requirements of pure abstract reason, and ultimately the requirements of formal logic and the law of non-contradiction.

This is neither Hegel's philosophy nor Marx's: it is pure Kant. For morality, according to Kant, is practical reason, which gives man 'laws a priori as a rational being' (Groundwork, p. 57); and these laws in the end reduce to one law: the moral law, the categorical imperative: 'this is the principle on which a will can never be in conflict with itself' (ibid. p. 104).

Both Hegel and Marx reject this abstract, moral, Kantian perspective in all its forms. Dialectical philosophy does not seek to 'criticize' the world in this fashion; rather, it seeks to understand the reality of things in an objective and scientific way. No one is more insistent upon this than Hegel:

To comprehend what is, this is the task of philosophy... Whatever happens, every individual is a child of his time; so philosophy too is its own time apprehended in thoughts. It is just as absurd to fancy that a philosophy can transcend its contemporary world as it is to fancy that an individual can overlap his age... If his theory really goes beyond the
world as it is and builds an ideal one as it ought to be, that world exists
indeed, but only in his opinions, an insubstantial element where anything
you please may, in fancy, be built.

(Philosophy of Right, Preface, p. 11)

The Kantian idea, of course, is that what ought to be should
not be a matter of ‘fancy’, but rather something which is
derived from the principles of logic a priori. According to
dialectics, however, the law of non-contradiction is as little
capable of serving as a practical law as it is of serving as a law
of thought. Indeed, the inability of the merely formal
principle of consistency to offer any concrete guidance in the
practical sphere is a familiar objection to the Kantian
‘categorical imperative’, which has been urged against it by
philosophers from Hegel’s time to the present. As Hegel
says:

It would be strange... if tautology, the maxim of contradiction, which is
admitted to be only a formal criterion for the cognition of theoretical truth,
i.e. something which is quite indifferent to truth and falsehood, were
supposed to be more than this for the cognition of practical truth.

(Phenomenology of Spirit, M, p. 259; B, p. 449)

Indeed, the inadequacy of the law of non-contradiction
to serve as a practical principle can be well illustrated with
Norman’s own example of the teacher

Who is continually urging his students to think for themselves, constantly
trying to get them to state their own ideas, but who, as soon as they say
anything, immediately jumps down their throats, producing a host of
incisive critical remarks which are so intimidating that they effectively
inhibit the students from ever stating any thoughts of their own. This
person’s behaviour is self-contradictory, self-defeating, irrational.

(pp. 60–1)

In this example, Norman describes a familiar and real
conflict: a problem which all teachers, and all students, must
face in the course of their work. It is evident, just from the
way in which this conflict is presented, that Norman thinks
that a teacher ought to encourage students to present their
own ideas and that he ought not to contradict this in his
actions. But this by no means follows simply from the
principle of non-contradiction. On the contrary, adherence to
this principle, so far from providing any useful guidance here,
in fact stands in the way of any understanding of the real
nature of the issues involved. For the law of non-
contradiction tells one only to be consistent; and, as a teacher,
one could equally be so either by merely encouraging one’s
students to propound their own ideas without ever criticizing
or contradicting them, or, alternatively, by abandoning all
attempt to get one’s students to state their ideas and
consistently imposing one’s own. Neither choice, however,
would be a rational one for a teacher to adopt. Indeed, either
course, if pursued consistently, would bring education to a
halt. For education essentially involves both these aspects—it
is their unity. If, as a teacher, one never imposes one’s views,
ever contradicts students when they are mistaken about the
truth, then one is not teaching; and if one’s students are not
able to express and develop their own ideas then they are not
learning. Teachers and students must necessarily conflict and
contradict each other, for the process of education is this very
contradiction. Here, as always, the law of non-contradiction
and the metaphysical thought to which it gives rise, positively
hinder the attempt to understand things concretely. Instead
of blinding oneself to such contradictions and conflicts, one
should rather recognize their reality, and then go on to ask
how they can best be handled. This is the truly rational
approach to practical problems.

According to dialectical philosophy, all real social
activities, institutions, arrangements, etc., embody
contradictions and conflicts. The idea of a society entirely
free from all antagonism and conflict and contradiction, the
Kantian idea of a ‘kingdom of ends’, is an abstract and
utopian ideal. The ‘critical’ concept of contradiction, the
idea that contradiction is something ‘irrational’ that ought
not to be, is a negation of the fundamental principle of
dialectical thought, according to which contradiction and
conflict are the essential nature of all concrete things. As Hegel says,

In general, our consideration of the nature of contradiction has shown that it is not, so to speak, a blemish, an imperfection or a defect in something if a contradiction can be pointed out in it. On the contrary, every determination, every concrete thing, is essentially a unity... of contradictory moments.

(Science of Logic, pp. 422–3)

Marx, too, rejects the idea that contradiction is a ‘critical’ concept. He is scathing about those who see in contradiction only something bad, which ought not to be. Writing about what he calls the ‘philanthropic’ and ‘humanitarian’ school of thought, he says:

It denies the necessity of antagonism; it wants to realize theory in so far as it is distinguished from practice and contains no antagonism [i.e. the Kantian ‘ought’—S. S.]. It goes without saying that, in theory, it is easy to make an abstraction of the contradictions which are met with at every moment in actual reality. This theory would therefore become idealised reality.”

(Poverty of Philosophy, p. 109)

According to Marx capitalism is contradictory. But, contrary to what Norman says, it is no part of his purpose to say, on this basis alone, that it is irrational and that it ought to be replaced by a society which is free from contradictions and in accordance with the demands of abstract and formal reason. Marx explicitly rejects such an approach as utopian, and talks of his own method, by contrast, as scientific. Throughout his work, Marx is concerned, as he says in the preface to the first edition of Capital, to understand ‘the social antagonisms that result from the natural laws of capitalist production’ (Capital, vol. I, p. 8); laws which, whatever one may think ought to be the case, as he says, ‘work themselves out with iron necessity towards inevitable results’ (idem.).

This is not to deny either that Marxism is critical of capitalism, or that it involves values. Marxism is a form of socialism—it posits a socialist, classless society as a goal and as an end to strive for, as something which ought to come about.

However, this is nothing peculiar to Marxism: there are many different varieties of socialism. What distinguishes Marxism among them is the attempt to develop socialism in a scientific fashion. For what Marx says is not just that socialism ought to come about, but that it will come about, and he says this on the basis of his understanding of the forces and laws actually at work in the present, in capitalist society. Thus he sees the End of socialism, not as a product of pure reason a priori, but rather as the outcome and result of real historical forces. This does not mean that Marx’s account of socialism (or capitalism) is ‘value-free’. Of course it isn’t. Of course Marx thinks not only that socialism will come about but also that it ought to. And throughout his life, he consciously and publicly identified himself with those forces within the capitalist society of his time which were trying to bring about its downfall and to establish a socialist society in its place. So of course he criticizes capitalism—but let us be clear about the way in which he does so: not merely by judging it to be something bad which ought not to be, on purely formal and a priori grounds, but by providing the substantial basis of a scientific analysis of the laws actually governing it. And, on this basis, his work represents an infinitely more effective critique of capitalism than any a mere abstract ‘ought’ can provide, an infinitely more effective critique than anything possible within the framework of dualism. For in the account he gives of the laws of historical development, he provides not only a theoretical critique of capitalism, but also the indispensable basis for a genuinely practical critique and revolutionary transformation of capitalist society.

Marx sees the contradictions of capitalism, then, not as abstract and ideal oppositions between the way things are and the way they ought to be according to the demands of pure reason; but rather as real struggles between real and concrete social forces. The ‘inevitable results’ of these struggles, according to Marx, include the overthrow of capitalism and the development of socialism. But Marx never conceives of this in abstract, utopian fashion, as a perfectly harmonious
society and a product of pure reason. On the contrary, according to Marx, socialism will be a real historical epoch, the product of the antagonistic forces of capitalist society; and, like all other historical forms of society, will itself embody antagonisms, contradictions and struggles. If capitalism must be criticized merely on the grounds that it is self-contradictory, then so too must socialism and all other concrete and historical forms of society. The only non-contradictory society would be an abstract utopia, and nothing could be more foreign to Marx’s idea than to make this the basis of his social criticism.

Notes

1 See also Mao Tse-tung Unrehearsed p. 226, where, even more categorically than Lenin in his Philosophical Notebooks, Mao emphasizes the centrality of law of the unity of opposites to dialectics:

Engels talked about the three categories, but as for me I don’t believe in two of those categories . . . The most basic thing is the unity of opposites. The transformation of quality and quantity into one another is the unity of the opposites quality and quantity. There is no such thing as the negation of the negation. Affirmation, negation, affirmation, negation . . . in the development of things, every link in the chain of events is both affirmation and negation.

2 The saying was originally Bishop Butler’s; it has been given modern currency by G. E. Moore, who used it as the motto for his Principia Ethica. For further discussion of its significance, see Essay 1.

3 This qualification is important. Up to a point, according to dialectics, things can change quantitatively while still preserving their qualitative character (identity). However, beyond that point, qualitative change occurs and they lose their identity. On this, see Hegel, Enc. Logic, sections 107–111 on “Measure”, and Engels, Anti-Dühring, Part I, Ch. 12.


5 When I talk of ‘immediate’ experience here I do not mean to imply the abstract and absolute immediacy of the empiricist theory of experience, as embodied in the classical ‘theory of ideas’ and modern

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‘sense data’ theories. What I mean is a relatively immediate level of experience which, in this case, must clearly contain some mediation and reference beyond itself, since it is ex hypothesi already comprehended theoretically.

6 For a further discussion of some of these issues, see Sean Sayers, ‘Towards a Radical Philosophy’.

7 See for example the papers collected in C. V. Borst, ed., The Mind/Brain Identity Theory.

8 Plekhanov is clear about this:

The main distinguishing feature of materialism is that it eliminates the dualism of mind and matter, of God and nature, and considers nature to be the basis of those phenomena which, ever since the days of primitive hunting tribes, men have explained by the activity of objectified souls and spirits. To the opponents of materialism, about which most of them harbour the most absurd ideas, it appears that Engels defined the essence of materialism wrongly, and that in effect materialism reduces mental phenomena to material ones.

(Forward to 2nd Russian edn. of Engels, Ludwig Feuerbach, p. 81)

9 It is something to Popper’s credit that he sees this: Conjectures and Refutations, p. 33.

10 Mao Zedong makes essentially the same point in the following important passage:

The productive forces, practice and the economic base generally play the principal and decisive role; whoever denies this is not a materialist. But it must also be admitted that in certain conditions, such aspects as the relations of production, theory and the superstructure in turn manifest themselves in the principal and decisive role . . . Are we going against materialism when we say this? No. The reason is that while we recognize that in the general development of history the material determines the mental and social being determines social consciousness, we also—and indeed must—recognize the reaction of mental on material things, of social consciousness on social being and of the superstructure on the economic base. This does not go against materialism; on the contrary, it avoids mechanical materialism and firmly upholds dialectical materialism.

(‘On Contradiction’, pp. 58–9)

11 Althusser’s use of the term ‘reductionism’ is very wide, like his use of the term ‘empiricism’. He takes in with it not only ‘the Second
There are strong idealist tendencies also in Althusser's account of historical materialism. For, although he starts off by reducing human nature to social and economic relations, it transpires that his account of these portrays them as determined and shaped by ideology, i.e. by consciousness, political outlook and commitment (will), and by other essentially subjective factors. Certainly, he rejects the idea that individual subjects make history—but only to replace it with an idea of social relations which function effectively as a social, trans-individual, subject in his philosophy, and to which mere individual 'subjects' are simply reduced (see, e.g., Lenin and Philosophy, p. 159). Here it is worth recalling some more of Marx and Engels' polemics against the Young Hegelians, this time from The Holy Family. In that work Marx writes, 'History... becomes a person apart, a metaphysical subject of which actual human individuals are merely bearers' (p. 79). And Engels:

_History does nothing_, it 'possesses _no_ immense wealth', it 'wages _no_ battles'. It is _man_, real, living man who does all that, who possesses and fights; 'history' is not, as it were, a person apart, using man as a means to achieve its _own_ aims; history is _nothing but_ the activity of man pursuing his aims. (p. 93)

Of course Hegel gives an idealist account of the _natural_ world as well, since he believes that there, too, reason rules.

E. H. Carr, _What is History?,_ ch. 6, contains an excellent account of the non-theological, non-idealistic, 'rational kernel' of the Hegelian doctrine that history is a process of the progressive 'realisation of reason', and I am much indebted to it in my understanding of these issues.

See especially F. H. Bradley, _Ethical Studies_, ch. 4.
5

DIALECTICAL CONCEPTS AND THEIR APPLICATION TO NATURE

Richard Norman

Sayers would claim that his interpretation of the materialist dialectic is the traditional orthodox interpretation, and I would not dispute that claim. That the dialectic applies in the same way to the natural world and to the human social world, and that the term 'contradiction' properly describes the kind of conflict which is the source of all natural and social change—this is indeed the dialectical materialism of Engels and Lenin and the tradition which they represent. But as Sayers says (p. 94), it is out of fashion, even within Marxism. There has arisen what has virtually become a new orthodoxy—the view that dialectic is appropriate only to human thought and to human society and history, but not to nature (or to nature only in so far as it is considered as the object of human thought and action). Although such a view seems to have been dominant for some years, it is difficult to find direct statements of it. The seminal texts are apparently those of Lukacs and Kojève but, characteristically, they state the position mainly in footnotes. More recently writers such as Colletti and Schmidt have elaborated it at greater length, though their criticism of the dialectic of nature can still hardly be described as a frontal attack, since it remains incidental to their main purposes. Sartre's Critique of Dialectical Reason starts out from such a position, which is presented more readably in his essay 'Materialism and Revolution'. The clearest and most direct statement of the case which I know is an article by Richard Gunn entitled 'Is Nature Dialectical?', and I shall make frequent reference to this article.

The essence of the case is this: the dialectical notions of 'negation' and 'contradiction' can be used to describe the
relations between concepts; they can also be applied to human thought and action, in so far as human beings are conscious, thinking beings, users of concepts. But they cannot be applied to natural processes without thereby subscribing to an anthropomorphic, animistic view of nature. Thus a dialectic of nature properly belongs not in a materialist but an idealist philosophy. This is the case that Gunn argues. Some of the other writers I mentioned above have formulated other objections to a dialectic of nature. I shall come to these in due course.

My intention in this essay is to defend a version of the dialectic of nature. It is not, simply and straightforwardly, the version which Sayers defends. The objections summarized above do seem to me to be effective against certain features of that traditional version. But there remains, I think, a central core to the dialectic of nature which it is important to separate out. It can be found in Engels’s philosophical writing, and in Sayers’s presentation of Engels in Essay 4. It is this tenable core which I shall try to identify and defend.

Sayers thinks that my distinction between the ‘conceptual dialectic’ and the ‘empirical’ or ‘temporal dialectic’ prevents me from entertaining any really substantial version of the dialectic of nature (p. 95). He claims that in employing this distinction I am committed to a metaphysical dualism of just that kind which he and I would agree in counterposing to an authentically dialectical philosophy. I shall try to answer this criticism. I shall attempt to show that my use of the empirical/conceptual distinction (though of course it is ‘dualistic’ in the trivial sense that it asserts a dichotomy) does not commit me to the metaphysics of dualism. I shall argue that, on the contrary, we need this distinction in order to state correctly the defensible core of the dialectic of nature.

I accept however that when I elaborated the distinction in Essay 2 I left it as an abstract separation between the two kinds of dialectic. I criticized Hegel’s way of linking them, but left unresolved the question how, if at all, they could be more adequately connected within a materialist perspective.

In what follows, I shall attempt to offer a more satisfactory account of the positive connection between the two aspects.

The plan of the essay will be as follows. In part I, I shall reconstruct what I see as the tenable core of Engels’s dialectic of nature, and indicate how the formulation of it requires the distinction of ‘conceptual dialectic’ and ‘empirical-temporal dialectic’. In part II, I shall try to show that it is not open to the objections regularly brought against the idea of a dialectic of nature. In part III, I shall indicate why I think that this tenable core is worth defending.

I The Tenable Core
As I indicated in Essay 2, Engels sometimes writes as though he saw the essence of dialectic as consisting in a recognition of temporal development and change. His best writing in this vein is in the Introduction of Dialectics of Nature. He there distinguishes between two phases of the modern scientific revolution. Of the first phase, from Copernicus to Newton, he says:

... what especially characterizes this period is the elaboration of a peculiar general outlook, the central point of which is the view of the absolute immutability of nature. In whatever way nature itself might have come into being, once present it remained as it was as long as it continued to exist. The planets and their satellites, once set in motion by the mysterious ‘first impulse’, circled on and on in their predestined ellipses. ... The earth had remained the same without alteration from all eternity or, alternatively, from the first day of its creation. ... The species of plants and animals had been established once for all when they came into existence. ...  

(Dialectics of Nature, p. 24)

The second phase of the scientific revolution is typified by such developments as the Kant-Laplace theory of the origin of the solar system, the geological investigation of the formation of the earth’s surface, the Darwinian theory of evolution, and the discovery of the cell, which ‘not only reduced the gulf between inorganic and organic nature to a minimum but removed one of the most essential difficulties that had previously stood in the way of the theory of descent
of organisms' (p. 30). Summing up this second phase of the scientific revolution, Engels says, 'The new outlook on nature was complete in its main features: all rigidity was dissolved, all fixity dissipated, all particularity that had been regarded as eternal became transient, the whole of nature was shown as moving in eternal flux and cyclical course' (p. 30).

Now there is no doubt that Engels is identifying here a fundamental and general change of intellectual outlook. And if this new outlook is what he means by 'dialectics of nature', then that term refers to something relatively uncontroversial—not indeed that it is trivial, as some have claimed, but it is an intellectual revolution which has been, by now, more or less accepted and consolidated. But of course Engels's dialectic of nature also incorporates something considerably more controversial, for he takes over some of the principal Hegelian dialectical categories—quantity and quality, identity and difference, positive and negative, contradiction, cause and effect, chance and necessity, freedom and necessity—and argues for a dialectical understanding of the interrelationships between these categories. To revert to my earlier distinction, Engels's dialectic of nature includes not only a 'temporal dialectic' but also a 'conceptual dialectic', and it is not immediately clear what the connection is between them. If, reading the *Dialectics of Nature*, we turn from the theme of the Introduction and look at Engels's discussion of Hegelian polar oppositions, we may be puzzled as to why these two themes are both supposed to constitute a 'dialectical' view of nature. What links them under that rubric? In order to answer this question I want first to sketch the general picture of a dialectic of nature into which they can then both be fitted.

But before doing so I want to pose a prior question: what entities Engels to employ these Hegelian categories at all? Given his concern to associate dialectic with the natural sciences, it is striking that he should take his dialectical categories direct from Hegel; and what is even more striking is that he takes them not even from Hegel's *Philosophy of Nature* but from the *Logic*, the most metaphysical and *a priori* part of Hegel's dialectic. If Engels is prepared to appropriate in this way the Hegelian dialectic of categories, how are we to interpret his concurrence with Marx in criticizing the Hegelian dialectic as an inverted dialectic? The problem arises also in relation to Marx, who employs the method of the Hegelian conceptual dialectic in *Capital* and explicitly sanctions it in the *Grundrisse* Introduction. But the question is the more pressing in Engels's case because, unlike Marx, he takes over not just the Hegelian method but the Hegelian categories themselves.

Engels's answer would presumably be the following:

[Hegel's] mistake lies in the fact that these laws [of dialectic] are foisted on nature and history as laws of thought, and not deduced from them. This is the source of the whole forced and often outrageous treatment; the universe, willy-nilly, has to conform to a system of thought which itself is only the product of a definite stage of evolution of human thought. If we turn the thing round, then everything becomes simple, and the dialectical laws that look so extremely mysterious in idealist philosophy at once become simple and clear as noonday. ... It is, therefore, from the history of nature and human society that the laws of dialectics are abstracted.

(*Dialectics of Nature*, p. 62, order of sentences altered)

This amounts, I think, to the suggestion that whereas Hegel treats the dialectic of categories as an *a priori* construction (the universe conforming to a system of thought), it must in fact be established empirically, on the basis of results abstracted from the natural and human sciences (thought conforming to reality).

As a response to Hegel, this hardly seems satisfactory. To say that Hegel's dialectical conclusions are correct but that his attempts to establish them are totally untenable, would be implausible on any reckoning. But what is more, it implies a relationship between conclusions and grounds which would be highly undialectical. Conclusions and the grounds by which they are supported can surely not be divorced in this abstract way. And indeed if we look at Engels's actual procedure we shall find that its distance from Hegel's is not as
great as he would have us believe. Certainly he continually insists that he is only summarizing the results of the sciences—that, as he puts it in *Anti-Dühring*, ‘nature is the proof of dialectics’ and that ‘modern science has furnished the proof with very rich materials increasing daily’ (*Anti-Dühring*, p. 36). And he does indeed make constant use of examples drawn from the natural sciences. But the question is, what role do these examples play?

Here is one case. In the *Dialectics of Nature* Engels is discussing the dialectical interrelationship between the categories of ‘identity’ and ‘difference’. He says:

The plant, the animal, every cell is at every moment of its life identical with itself and yet becoming distinct from itself, by absorption and excretion of substances, by respiration, by cell formation and death of cells, by the process of circulation taking place, in short, by a sum of incessant molecular changes which make up life and the sum-total of whose results in evident to our eyes in the phases of life—embryonic life, youth, sexual maturity, process of reproduction, old age, death. (*Dialectics of Nature*, p. 214)

The biological examples here are undoubtedly apposite, but they do not in themselves provide the ‘proof of dialectics’. We can see this if we remind ourselves of the fact that Hume evinced precisely analogous considerations to show, not that identity and difference are dialectically interrelated, but rather that, since things are continually becoming different, they can have no continuing identity. (I have in mind the chapter on ‘personal identity’ in Hume’s *Treatise of Human Nature* from which Sayers quotes on pp. 74–5.) So the scientific examples raise the problem, they do not solve it. Hegel, and following him Engels, would understand the examples dialectically, Hume would interpret them by saying that identity and difference exclude one another. So one cannot appeal to the scientific examples to vindicate the dialectical interpretation. What then does one appeal to? This of course is the vital question and I’m not at all sure of the answer, but it seems to me that all one can do is appeal to other, acknowledged assertions of identity and show that even the most uncontroversial of them involve the assertion of identity in difference. One appeals, as it were, to the most general conceptual paradigms. And this is what Engels himself goes on to do. He says, ‘The fact that identity contains difference within itself is expressed in every sentence, where the predicate is necessarily different from the subject; the lily is a plant, the rose is red...’ (*Dialectics of Nature*, p. 215). And this very Hegelian argument is immediately followed by a page-reference to Hegel’s *Logic*, and by the equally Hegelian sentence ‘That from the outset identity with itself requires difference from everything else as its complement, is self-evident.’

The important point, then, is that, despite his own account of the matter, Engels cannot and does not just appeal to scientific results to establish dialectical relations; he, quite rightly, appeals to Hegelian arguments in order to interpret the scientific results dialectically. And to a certain extent he is aware of this. Though, as I have said, he sometimes describes himself as simply summarizing the results of the sciences, elsewhere he says that, when one comes to the dialectical interpretation of scientific results, ‘here the methods of empiricism will not work, here only theoretical thinking can be of assistance’, and this theoretical work he equates with ‘what hitherto was called philosophy’ (*ibid.* p. 42).

Now I don’t want to go to the other extreme and say that Engels’ dialectic of categories is, as Hegel’s purports to be, a purely a priori construction. Hegel would claim that the whole content of his *Logic* and indeed of his complete system is derived a priori from the initial category of pure being, a category which, since it lacks any sensory content, is pure thought (*Enc. Logic*, sec. 86). Thus the whole system is supposed to be generated, by pure thought, out of pure thought. Now of course this claim on Hegel’s part cannot possibly be sustained. The system of categories is not a purely rational deduction; quite simply, many of the logical transitions and deductions are invalid, they beg questions and contain implicit appeals to empirical assumptions about the nature
of reality. Equally obviously, Engels does not make any such claim. He does not attempt to take over the system as a whole, but only particular and limited dialectical sequences, the dialectical treatment of particular pairs of opposites. He is in no way committed to Hegel's apriorism. He insists on the priority of being to thought: reality exists independently of any knowledge of it, and the dialectical categories are the product of the attempt by human thought to apprehend reality. Hence also this dialectical understanding of reality is impossible without empirical enquiry.

Nevertheless, as I have suggested, Engels is wrong to imply that this dialectic can be simply read off from the results of the sciences. I would say rather that it is the product of a priori reflection upon scientific results and more general empirical facts. In saying this, I am undoubtedly ascribing to a priori reflection a greater autonomy than Sayers is prepared to accept. On the strength of my use of the 'a priori/empirical' dichotomy in Essay 2, Sayers takes me to be committed to a pure apriorism. He ranks my view with that of British analytical philosophy, according to which '... philosophy is supposed to consist of a body of purely conceptual truths—timeless, logical truths, the product of pure reason a priori—distinct and separate from the sciences, which involve the empirical investigation of reality' (p. 77). As I have said, this is not what I want to maintain, and if my use of the a priori/empirical dichotomy appears to suggest it, I would be content instead to use Engels's own term, which Sayers also adopts (p. 80), and to say that the dialectic of categories is the product of theoretical work on the empirical material. But what I want to insist on is this—that the dialectic of categories is not established simply by empirical scientific results, nor does it simply summarize and generalize them. The results of the sciences have to be further interpreted (just as scientific theories themselves require the interpretation of the empirical data). And this further process of interpretation is a specifically conceptual investigation. It is to emphasize this that I have referred to the two aspects of dialectic as

'empirical' and conceptual'. And the distinction that I make between them is stronger than that which is recognized by Sayers, for though he is prepared to acknowledge some distinction between conceptual or philosophical enquiry and empirical investigations (p. 78), the relationship between them turns out to be simply that conceptual and philosophical claims are shown to be true or false 'as a result of experience and empirical investigation, repeated many times and eventually summed up theoretically and philosophically' (p. 81).

Only by recognizing the relative autonomy of conceptual enquiry can we understand a further feature of the relation between dialectic and science. Sayers says of this relation, 'Empirical and scientific knowledge is summarized and articulated at the most general level as philosophy; and, in turn, philosophical theory guides and determines further practical and scientific work' (p. 79f.). How are we to reconcile the two halves of this statement? If the philosophy of dialectic merely summarizes scientific results to date, how can it be prescriptive about further scientific enquiry? To do so it would, in some sense, have to go beyond the existing achievements of science. But this is what Sayers seems to deny. He apparently wants to locate the dialectic of nature on the same level as the theories of the natural sciences—it is merely a summation of them. But in that case its claim to guide science in its future path begins to look like a kind of dogmatism, and it is not surprising that it has often been seen as such—as a dogmatic insistence that future science must conform to the pattern of past science. My own view, in contrast, is that dialectic can be said to guide scientific enquiry, because it does not itself belong at the level of specific scientific theories at all. To take a closely related example, the relation of the dialectic of nature to the sciences is like that of the materialist theory of mind to discoveries in the neurophysiology of brain processes and functions. Of course the materialist theory of mind builds on, and makes use of, the scientific data, the success of neurophysiology in
explaining the working of the central nervous system and correlating them with mental functions. But the theory can't just be abstracted from those data; it is a philosophical interpretation of them, a controversial interpretation requiring a great deal of philosophical argument—as we well know from recent controversies. Exactly the same goes for the relation between the dialectic of nature on the one hand and scientific and empirical data and theories on the other. The dialectic builds on scientific and pre-scientific experience, but it goes beyond them; it is a product of philosophical, theoretical reflection on them. It is a general philosophical perspective, what Engels himself calls a 'world outlook' (*Anti-Dühring*, p. 191). And thus, though it cannot anticipate future scientific results, it can be prescriptive in relation to scientific work; it constitutes a conceptual framework within which scientific problems and tasks are to be identified and formulated.

And what is the nature of this 'world outlook'? It is the one which Sayers himself presents on pp. 105–7, and which he rightly attributes to both Hegel and Engels. In Engels' writing the general picture does not always emerge clearly, partly because Engels never wrote his *Dialectics of Nature* as a finished work. But from the notes and fragments and from Engels's other writings there emerges an underlying theme. When Engels insists on the dialectical interconnections between the polar opposites, such as quantity and quality, identity and difference, necessity and freedom, etc., his overall concern is with the avoidance of the one-sided extremes of mechanistic materialism on the one hand, and a dualist separation of man from nature on the other. As Sayers stresses, and as I would entirely agree in stressing, a specifically dialectical materialism differs from other forms of materialism in being non-mechanistic, non-reductionist.

Engels regularly puts this in terms of the idea of a hierarchy of the sciences. On the one hand he emphasizes the unity of the sciences. The significance he sees in the discovery of the cell, the law of the conservation of energy, and the theory of biological evolution is that they make possible a monistic world-outlook in which everything in nature, including organic and human life, can be seen as resulting from transformations of matter in motion, according to definite laws. But this does not mean that the whole of nature is reducible to the most basic mechanical form of motion. The science of mechanics deals with motion simply in the form of change of place, and considers it only in quantitative terms; it calculates with velocities and masses, and at most with volumes (*Dialectics of Nature*, p. 252). But though all motion and all life involve mechanical motion, 'this mechanical motion does not exhaust motion as a whole. Motion is not merely change of place, in fields higher than mechanics it is also change of quality.' Physics and, still more, chemistry deal with qualitative transformations which take place on the basis of these quantitative changes. Biology in turn is concerned with a qualitatively new and higher form of motion, life, but this still has as its basis the forms of motion studied by mechanics, physics and chemistry; and in the same way the human sciences deal with that highest form of life, conscious life, which nevertheless retains and incorporates all the lower forms of motion. So the general picture is one which, while rejecting any gulf between the organic and the inorganic, between human life and the natural world, views the higher levels of nature as incorporating, but not reducible to, the lower.

I now want to take up the question of the positive connection between the empirical-temporal dialectic and the conceptual dialectic, for I want to suggest that it is this general dialectical world-outlook that unites the two kinds of dialectic. We can exhibit the positive connection between them by locating them both as essential elements of this picture. First, the temporal dialectic: Engels's stress on evolution and historicity ties in with the idea of a hierarchy of forms of motion. For, at least at the upper levels of the hierarchy, the transition from one form of motion to a qualitatively new and higher form is also a temporal develop-
ment. Organic life arose out of chemical processes, it developed to higher levels; there gradually emerged, over time, the new characteristics of purposiveness and then of consciousness.

But as I have indicated, the empirical facts of evolutionary development are not in themselves sufficient to establish the dialectical world-outlook. We can see this if we think of the differing philosophical uses that are made of Darwinian evolutionary theory. The religious dualist or vitalist, for example, might say that though evolutionary theory exhibits the causal mechanisms underlying the physical development of the human species from other living species, 'science cannot explain everything'. It can reveal only the physical continuity, whereas the emergence of 'life', the infusion of 'soul', remains a mysterious qualitative leap which no scientific explanation can comprehend. At the other extreme, we are familiar with those crude misuses of evolutionary theory which seek to persuade us that, since the human species has evolved from other animal species, it cannot be essentially different from those other species; man just is a 'naked ape' or whatever—and we are then treated to that wearisome catalogue of vices such as aggressive instincts, territorial possessiveness, etc., which we are told that human beings can never transcend. The incorrectness of these dualist and reductionist uses of evolutionary theory cannot itself be demonstrated by further appeal to the empirical facts. It becomes a matter of philosophical argument about the proper significance of those facts.

Thus the conceptual dialectic is itself essential to the dialectical understanding of the facts of evolution and historicity. It provides the framework within which evolutionary development can be seen both as guaranteeing the material unity of all existence, and yet as involving the emergence of qualitatively new forms of existence. I would argue that all the dialectical categories taken from Hegel are used by Engels, in one way or another, to help establish this general picture—a monistic view of nature as matter in motion, the transformation of different forms of motion into one another, and the irreducibility of the higher forms to the lower. I shall not try to establish this in detail for all the categories, but here is a passage which brings out the particular importance of the categories of quantity and quality, identity and difference:

... the 'mechanical' conception... explains all change from change of place, all qualitative differences from quantitative ones, and overlooks that the relation of quality and quantity is reciprocal... If all differences and changes of quality are to be reduced to quantitative differences and changes, to mechanical displacement, then we inevitably arrive at the proposition that all matter consists of identical smallest particles. . . .


The suggestion here is that the mechanistic world-outlook treats the categories of 'quantity' and 'identity' as primary, and regards 'quality' and 'difference' as derivative and, in some sense, illusory manifestations of them. Occurrences of qualitative differences are, from a mechanistic point of view, held to be reducible to merely quantitative changes in things which remain qualitatively identical. This account of the mechanistic world-outlook can be backed up historically. Such an outlook was first formulated by various Greek philosophers responding to the influence of Parmenides. He had denied the reality of all differences and of all change; the universe was an undifferentiated and unchanging unity. His successors tempered his position to accommodate it more convincingly to the evidence of the senses: things do change, but all such changes can be explained as mere changes of place, the combination and separation of qualitatively unchanging elements. Thus we find Empedocles denying the reality of qualitative change. 'They are fools who suppose that something can come into existence which previously did not exist, or that anything can be destroyed and completely cease to exist. From that which in no sense is, it is impossible that anything should come into being, and it is impossible and unheard-of that what is, should cease to be' (Fragments 11 and 12; cf. G. S. Kirk and J. E. Raven, The Presocratic Philosophers, p. 323). And, in the same vein, Anaxagoras says, 'The
Greeks are wrong to believe in coming-to-be and ceasing-to-be. For nothing comes into being or perishes, but rather there is a combining or separating of the things that exist. So they would be right to call coming into being "combination" and perishing "separation". (Fragment 17, ibid., p. 369). Greek atomism represents the culminating attempt to formulate a theory of the universe on these lines; differences between the atoms are reduced to a minimum (size and shape, which can most easily be expressed in quantitative (geometrical) terms), and all changes are held to be spatial movements of the atoms. This then forms the starting-point for the revival of the mechanistic outlook with the modern scientific revolution.

To contrast this with a dialectical approach, we can usefully refer to Gunn’s article. He is quite explicitly dualist. He posits a fundamental division between on the one hand human beings, who are conscious beings, users of concepts, capable of acting purposively on the basis of theories and intentions, and on the other hand non-human nature, which exhibits ‘not “actions” but purely mechanical or instinctive “happenings”’ (Gunn, art. cit., p. 49). He then quotes John Hoffman (to whom he is replying in his article) as asking: ‘How can we explain the emergence of a dialectical man out of this void of bleak mechanistic timelessness?’ Gunn offers no answer, and I think that the only genuinely and consistently dualist answer would have to appeal to inexplicable qualitative leaps. The view which Gunn is opposing imagines that the only alternative is to deny the reality of qualitative changes and differences. Its principle is that if $x$ emerges out of $y$, any feature of $x$ must also be a feature of $y$. A dialectical understanding of ‘quantity’ and ‘quality’ reveals the inadequacy of both these unpalatable alternatives. Qualitative changes are real and irreducible, but they take place on a basis of quantitative change; differences of degree, when they reach a certain point, become re-characterizable as qualitative changes, without thereby ceasing to be also quantitative. Thus, in explaining the evolution of conscious human concept-users from other living species—a qualitative change—we should have to refer to the increasing complexity of animal behaviour. The activity of the higher mammals becomes increasingly remote from immediate stimuli, it involves an increasingly complex interconnection of ends and means. These are quantitative changes. The emergence of consciousness is not something additional to these. Rather, when the complexity reaches a certain level, qualitatively new descriptions in terms of ‘conscious’ ends and purposes, of ‘conceptual’ and ‘linguistic’ behaviour, become appropriate. These new characteristics are irreducible in the sense of being theoretically indispensable, but they are not inexplicable. Thus we can explain the qualitative emergence of human life from pre-conscious life and ultimately from mechanistic inorganic nature without being condemned either to an animistic view of nature or a mechanistic view of man.

In discussing the place of the dialectical categories in the overall world-outlook, I have deliberately given special emphasis to the dialectical interconnection of ‘quantity’ and ‘quality’. Engels does the same. The ‘law of the transformation of quantity into quality and vice versa’ is one of his three laws of dialectics (Dialectics of Nature, p. 62). The other two are ‘the law of the interpenetration of opposites’ and ‘the law of the negation of the negation’. Strictly speaking, the ‘quantity/quality’ law is a particular instance of the law of the interpenetration of opposites, but Engels is right to give it a special emphasis, since it is absolutely central to his general picture of the emergence of higher forms of motion out of lower. As I have indicated, however, all the dialectical categories fit into this same world-outlook at one point or another.

It is this world-outlook, then, this non-reductionist monism, that constitutes the philosophical perspective within which Engels interprets the results of the sciences and that unites the ‘temporal dialectic’ and the ‘conceptual dialectic’ in what I regard as the tenable core of Engels’s dialectic of nature. It is also an authentically Hegelian theme (cf. for example the discussions of ‘quantity’ and of ‘mechanism,
chemism and teleology in the Logic, but with Engels it is detached from Hegel's a prioriism and idealism, and in the next section I shall seek to show that it can survive that detachment.

II Objections to a Dialectic of Nature
I turn now to a consideration of the objections to the idea of a dialectic of nature.

I
We saw that Gunn and others regard dialectic as appropriate to concepts, and to human beings as users of concepts, but not to natural processes. What they seem to forget, however, is that concepts not only have users, they also have an application. Specifically, it may be that dialectically-related concepts have an application to nature. And that is in fact precisely what I would claim. The aspect of the dialectic of nature on which I have mainly been concentrating is Engels's dialectic of concepts. But this dialectic of concepts also merits the name 'dialectic of nature' because the concepts in question apply to natural processes; an adequate philosophical understanding of the natural world requires a recognition of the dialectical character of the concepts through which it is comprehended.

I'll try to clarify this point by taking the two dialectical notions of 'contradiction' and 'negation' which Gunn discusses. Now the actual word 'contradiction' in fact plays a surprisingly minor role in Engels' Dialectics of Nature. But in so far as it belongs with the version of dialectic I have been setting out, it does so as the way of characterizing the unity of opposed concepts such as 'quantity' and 'quality'. 'Contradiction' is to be equated with what Engels also calls 'interpenetration of opposites'. I would argue that this is the central meaning of the term within the Hegelian dialectic; and it is the meaning I would want to give to it within my version of the dialectic of nature. It expresses, then, a relation between concepts. But these concepts have application to the natural world. And in saying that the term 'contradiction' describes the relation between concepts applicable to natural processes, we are not thereby committed to saying that the term also describes a relation between natural processes themselves.

As Gunn himself points out (p. 49), the assumption that features of our concepts must also be features of the reality these concepts apply to, and vice versa, is a product of an over-crude reflection theory. And Engels is indeed guilty of such a confusion. This is apparent in the following passage. 'Dialectics, so-called objective dialectics, prevails throughout nature, and so-called subjective dialectics, dialectical thought, is only the reflection of the motion through opposites which asserts itself everywhere in nature, and which by the continual conflict of the opposites and their final passage into one another, or into higher forms, determines the life of nature (Dialectics of Nature, p. 211). Engels here seems to suppose that if contradiction is a feature of the concepts we apply to nature, this can only be because natural processes themselves contradict one another. I agree with Gunn in regarding this as fallacious. I also share his reluctance to speak of one natural force 'contradicting' another. I discussed this point in Essay 3. As I said there, we can agree with Engels that change in nature is generated by the interaction of conflicting forces, but the question is, by what right are these conflicts called 'contradictions'? Immediately after the sentence quoted above, Engels cites the example of 'attraction' and 'repulsion'. But the relevance of 'contradiction' to 'attraction' and 'repulsion' is, not that attracting or repelling forces 'contradict' one another, but rather that 'attraction' and 'repulsion' are another example of the unity of opposed concepts. Engels recognizes this in his discussion of the example elsewhere:

Dialectics has proved from the results of our experience of nature so far that all polar opposites in general are determined by the mutual action of the two opposite poles on each other, that the separation and opposition of these
poles exist only within their mutual connection and union, and, conversely, that their union exists only in their separation and their mutual connection only in their opposition. This once established, there can be no question of a final cancelling out of repulsion and attraction, or of a final partition between the one form of motion in one half of matter and the other form in the other half. . . .

(Dialectics of Nature, p. 72)

Here it is not a matter of opposed forces contradicting one another, but of the unity of opposed concepts which constitutes a ‘contradiction’ in the dialectical sense. As I argued in Essay 3, this is the legitimate sense in which the vocabulary of ‘contradiction’ is appropriate to our understanding of natural forces. And the majority of Engels’ examples of ‘contradiction’ in the Dialectics of Nature are of this kind (see especially pp. 213–21)

What I have said about ‘contradiction’ goes also for ‘negation’. Like Gunn, I am unimpressed by Engels’ example of the grains of barley as a purported instance of the ‘negation of the negation’ (Anti-Dühring, pp. 186–7). To say that the grains are negated by the barley, and that the new grains produced by the barley are the negation of the negation—this animistic figure of speech may be harmless enough, but it is hardly a substantial foundation on which to build a dialectic of nature. Hegel makes use of similar examples (e.g. that of bud, flower and fruit cited by Engels on p. 221 of Dialectics of Nature), but they serve only as minor illustrations, and the real weight of the phrase ‘negation of the negation’ is carried elsewhere. So it must be for Engels, and so indeed it can be. The idea of a hierarchy of forms of motion, which I discussed above, is a genuinely substantial case of ‘the negation of the negation’. Each form of motion ‘negates’ the lower forms in a dialectical sense—it goes beyond them, but at the same time incorporates them within itself. For example, the kind of activity characteristic of organic life is distinct from merely mechanical motion, and from merely physical and chemical processes, but it is impossible without them and includes them as an essential element within itself. The lower forms

are preserved in the higher. But this does not mean attributing to living things the activity of ‘negating’ other forms of existence. To say this would only be to indulge in the kind of joke which Hegel cannot resist—animals ‘negate’ matter by eating it up (e.g. Phenomenology of Mind, B, p. 159, M, p. 65).

I agree, then, with Gunn in not wanting to posit ‘contradictions’ and ‘negations’ between natural processes. But (and here I disagree with Sayers as well as Gunn) such talk plays much less of a role in the dialectic of nature than is commonly supposed. What we do need to retain is the use of the terms ‘contradiction’ and ‘negation’ to describe the relations between dialectical concepts applicable to nature. And though this is not the only use of the terms in Engels’ dialectic of nature, it is the important one and the defensible one.

Gunn’s argument that ‘concepts such as negation and contradiction cannot without animism... be extended to cover nature’ is part of a wider accusation: ‘that a dialectical conception of nature is inseparable from Hegel’s idealism and that, in maintaining such a conception, Engels incorporated into his own outlook more of Hegel’s idealism than he knew’ (art, cit., p. 46). In examining this charge we need to ask just what Hegel’s idealism amounts to.

An important component of it is his apriorism. As we saw, Hegel supposes that the whole content of his system can be generated, by pure thought, out of pure thought. This, he thinks, vindicates the claim that reality is produced and constituted by thought. Now we have seen that Engels, in making use of Hegelian categories and Hegelian arguments, is not thereby committed to this claim. I argued that, though Engels’s dialectic must have an a priori component, it is not a pure a priori construct. It gets its material from experience and the empirical sciences, and is aware of so doing. Thus Engels is not compelled to acknowledge any idealist claims about the power of pure thought. He employs particular and limited logical progressions from Hegel’s Logic, but does not
inherit Hegel's illusion that the whole of the Logic can be a single unbroken logical progression. And though the idea of accepting parts and rejecting the whole may sound undialectical, I do not think it is really so. (I would suggest that, for a materialist dialectic, there are partial totalities, but no single all-embracing totality.)

In so far as Hegel's idealism is one with his apriorism, it is a deep-rooted feature of his philosophy. Other components of his idealism are more superficial. And when Colletti, in his book Marxism and Hegel, argues that any dialectic of matter is irretrievably Hegelian, he regularly fastens on these more superficial elements of Hegel's idealism. Inverting Colletti's own remark that Lenin's method of reading the Logic 'meant a lapse of attention wherever Hegel talks about God' (op. cit., p. 25), we could say that Colletti peruses every time Hegel mentions God or idealism. He fails to examine what lies behind Hegel's use of such language. A typical instance is his reaction to Hegel's concept of 'infinite'. Hegel says that dialectic resides in the recognition that everything finite is changeable and transient, that the finite must be taken up into the infinite; this recognition is, he says, 'an essential moment in all religious consciousness' (Enc. Logic, sec. 81). It is also the essence of idealism: 'This ideality of the finite is the chief maxim of philosophy; and for that reason every genuine philosophy is idealism' (ibid., sec. 95). Colletti seizes on such remarks, commenting that when Engels and Lenin tried to read Hegel materialistically they 'simply committed an error of interpretation' (Marxism and Hegel, p. 27).

But what does Hegel actually mean by his use of the terms 'finite' and 'infinite'? I take the concept of 'true infinity' to be in effect the concept of 'totality'. To say that the finite is taken up into the infinite is then to say that no particular concept, or any particular thing, can be understood in isolation; it can be understood only when located within the complex of relations linking it to other entities which serve to define it. This total complex of relations is 'infinite', 'non-finite', in the sense that it is complete, unbounded, not marked off in opposition to other specific entities, since it includes all these entities and their relations within itself. Hence my equation of 'infinity' with 'totality'. And this notion can certainly be appropriated within a materialist dialectic. It is, for example, crucial to Marx's use of dialectic in his economic studies (see the Grundrisse Introduction).

But Hegel also plays upon the traditional connotations of the term 'infinity'. He exploits the associations with the idea of God as an infinite being, the implicit suggestion that 'the transience of the finite' means the ultimate unreality of the material world. It has to be emphasized that we are dealing here with mere verbal associations, and not with any proper argument on Hegel's part. But Colletti entirely fails to perceive this. He makes no attempt to look beyond the connotations exploited by Hegel. For him they are enough.

Now admittedly Hegel's theism, like his idealism, is not always as superficial as this. I suggested in Essay 2 that it functions to legitimate Hegel's view that the temporal movement of history is a manifestation of the logical progression of the concept. To that extent the idea of God, equated with the principle of reason inherent in all things, is central to Hegel's philosophy. So, to echo Colletti's strictures against Lenin—it cannot indeed be said that a 'lapse of attention' is a fully adequate response to Hegel's avowals of idealism and religious orthodoxy. Nevertheless, in the case of the avowals we have been looking at, Lenin's response is at any rate more appropriate than Colletti's own. If one's attention is going to lapse anywhere, this is as good a place as any. For these components of Hegel's idealism are the product of a sleight of hand; they are not deeply embedded in his philosophy, let alone essential to dialectic.9

I turn finally to the objection that there can be no dialectic of nature because nature has no history. At one level this is obviously false. Engels, we have seen, emphasizes the facts of evolutionary change: the origin of the solar system, the
formation of the earth, the origin of life, the descent of man from other species, are all historical developments, stages in the history of nature. And however this is interpreted, none but a Christian fundamentalist would deny its truth. So the objection must be that natural changes are importantly different from human history, in ways which limit dialectic to the latter. This is a charge brought by Gunn. Following Kojève, he asserts that ‘human historical time... is clearly structured in terms of the teleological, purposive character of human practice, and for a materialist this structure cannot be transferred to nature’, which is causal rather than purposive (art. cit., p. 51). Within limits and with qualifications, I am inclined to accept this distinction. But why should only the one kind of historical structure be an object of dialectical thought? Gunn seems to treat it as simply true by definition that dialectic has to do with human agency. (He says, for example, that Marx’s dialectical method is a process of ‘so ordering concepts in a scientific text as to focus on human productive agency as the original moment of society’ (p. 47); this may in effect be true, but is extremely tendentious as a definition of dialectic.) The same goes for other writers. Lukács, for example, says, ‘The crucial determinants of dialectics—the interaction of subject and object, the unity of theory and practice, the historical changes in the reality underlying the categories as the root cause of changes in thought, etc.—are absent from our knowledge of nature’ (History and Class Consciousness, p. 24). He appears to take it for granted that the only historical changes which dialectic can be concerned with are those resulting from the interaction of the human subject and its object. Schmidt differs from Lukács in thinking that a dialectical approach to nature is possible but, like Lukács, he wants to tie dialectic to the subject-object interaction, and attacks Engels’s dialectic of nature in consequence. For Schmidt, nature can be dialectical only in so far as it is an object in interaction with human subjectivity:

Nature becomes dialectical by producing men as transforming, consciously acting Subjects confronting nature itself as forces of nature... Nature is the Subject-Object of labour. Its dialectic consists in this: that men change their own nature as they progressively deprive external nature of its strangeness and externality, as they mediate nature through themselves, and as they make nature itself work for their own purposes.

(The Concept of Nature in Marx, p. 61)

What all these writers have in common is the idea that dialectic is confined to the dialectical relation between subject and object. That there is a dialectical relation between subject and object, I would certainly not deny—and Lukács and Schmidt have valuable things to say about it, in the spheres of society and nature respectively. But I see absolutely no reason to confine dialectic to the subject-object dialectic. On the contrary, I would suggest that one cannot understand what is dialectical about the subject-object relation unless one sees it as just one instance of the general dialectical relation between polar opposites. If subject and object are related dialectically, then so are identity and difference, quantity and quality, necessity and chance, cause and effect, and all the rest.

Two further remarks on Schmidt’s position—
(i) Schmidt sometimes seems to suggest that the idea of nature as the subject-object of labour actually rules out an Engelsian dialectic of nature. The latter, he says, is an ontology, and as such ‘a relapse into naïve realism’ (p. 56); from the point of view of the subject-object dialectic, the aspiration after a ‘purely objective’ dialectic of nature is condemned to failure (p. 59). If that is so—if the subject-object dialectic as understood by Schmidt excludes the possibility of objective knowledge of the natural world—one can only comment: so much the worse for the subject-object dialectic. What is here being referred to by that label seems to be, in reality, the complete disappearance of the object into the subject.10
(ii) There is, I think, a valid sense in which it can be claimed that the natural world can be known only in so far as it
is also the object of human agency. This claim, properly understood, is by no means foreign to Engels, for whom, despite Schmidt's assertion to the contrary, man does not 'appear only as... a passive reflection of the process of nature' (p. 55). There are well-known, though less than felicitous, passages in both *Socialism Utopian and Scientific* and *Ludwig Feuerbach* about the connection between practice and knowledge of the 'thing-in-itself'. More noteworthy, I think, is an excellent passage in *Dialectics of Nature* on causality. Engels there shows that 'by the activity of human beings, the idea of causality becomes established, the idea that one motion is the cause of another'; mere observation by itself can never account for such an idea, and 'to that extent Hume's scepticism was correct in saying that a regular *post hoc* can never establish a *propter hoc*' (*Dialectics of Nature*, p. 230). More generally, Engels states, 'Natural science, like philosophy, has hitherto entirely neglected the influence of men's activity on their thought; both know only nature on the one hand and thought on the other. But it is precisely the *alteration of nature by men*, not solely nature as such, which is the most essential and immediate basis of human thought' (*ibid.* p. 231).

**III The Need for a Dialectic of Nature**

Let me reiterate, however: I am not straightforwardly defending Engels. I emphasize this for the benefit both of those who may think I am committed to the defence of an (untenable) orthodoxy, and of those who may think that I have misrepresented a (correct) orthodoxy. What I have offered in this paper is a *reconstruction* of the dialectic of nature, in a form in which I would want to defend it. Here as everywhere, any exercise in interpretation is pointless unless it tries to identify what is worth defending, and what needs to be discarded, in the theory under consideration. In conclusion, then, I will try to state why I think that the position I have presented is worth defending (other than because it is true).

I have said that Engels's overall concern is with the avoidance of the one-sided extremes of mechanistic materialism on the one hand, and a dualistic separation of man from nature on the other. This I take to be crucial. The two tendencies are apparent at various points within contemporary socialist theory. A case in point is the conflict between a deterministic Marxism which stresses the inevitability of the socialist transformation of society, and a voluntarist tendency which stresses the conscious will to create a new order. Another instance is the conflict between a positivistic Marxism which sees itself as a purely 'scientific', value-free theory, and a socialist humanism which grounds socialism in human needs and values. I do not want to suggest that any version of dialectic can be a magic wand conjuring up instant solutions to such dilemmas. I do think that a dialectic of nature along the lines I have proposed, a non-reductionist materialism, is the necessary starting-point.

The same tension between mechanistic materialism and dualism is a feature not only of contemporary Marxist theory in general, but of the varying accounts of dialectic itself. We have seen how the opponents of the dialectic of nature are committed to a form of dualism (Gunn is quite explicit about this). Sayers accuses me of inclining in the same direction. He suggests that, although I counterpose dialectical philosophy to dualism, nevertheless my own account of dialectic, and especially my distinction between empirical-temporal dialectic and conceptual dialectic, is a regression to an implicit dualism. I would bring against him an analogous counter-charge. His own account of dialectic, I think, veers in the direction of mechanism and reductionism, despite his explicit rejection of such a tendency. For though he insists that his understanding of the human domain is non-mechanistic, he goes on to claim that this is because his view of nature in general is non-mechanistic (pp. 103–4), so that it begins to look as though there is after all no essential difference between the human and non-human realms (cf. pp. 125–8). I find the same tendency in his apparent insistence that the concept of 'contradiction' applies *in just the same way* to the natural world and to the human world. I find it especially in his
strictures on my discussion of human rationality, where he seems reluctant to admit that human beings are distinguished from other beings by their capacity for conscious and rational action. (pp. 125–8). This leads him, apparently, to deny that 'contradiction' can properly function as a critical concept when it is applied to human actions and institutions. He says, 'Dialectical philosophy does not seek to 'criticize' the world in this fashion; rather, it seeks to understand the reality of things in an objective and scientific way.' (p. 135) This denial that Marxist theory is a critical theory is, it seems to me, a denial of the primary impulse behind all socialist thought and action. One might almost attribute to Sayers the view that 'philosophers so far have tried to change the world; the point, however, is to understand it.'

What I want to insist on, and what Sayers is in danger of denying, is the specificity of the terms in which we have to comprehend the human world. Of course human beings are a part of the natural world, and a philosophy which neglects this ceases to be materialist. But I have argued that this materialism does not preclude us from recognizing qualitative differences between the human and the non-human. They are the sorts of differences referred to by Marx in his manuscript on 'Alienated Labour' as distinguishing men from animals: animals produce only instinctively, in response to immediate physical needs, and in a manner which is standardized and uniform for the whole species, whereas man produces consciously, in accordance with universal principles, he is able to produce in different ways according to his choice, to assess his products aesthetically and to produce for the sake of beauty rather than physical need, etc. Now all of these can be seen as differences of degree, and, as Sayers is right to emphasize, there is no absolute gulf between the human and the natural world. For example, a bird's building a nest is, when contrasted with, say, an animal's hunting its prey, less directly a response to a need, and thus closer to characteristically human action; the same would be true of an animal storing food before hibernation, or Köhler's apes using sticks to drag food into the cage. Through greater and greater extensions of such activity, which becomes increasingly complex, increasingly remote from immediate stimuli, and involves an increasingly complex interconnection of various ends and means, we eventually arrive at distinctively human activity. But the difference in degree is so great as to warrant the application of generically different descriptions to the distinctively human activities, terms such as 'rationality'.

Moreover, it is because human beings are capable of the rational pursuit of their aims and interests that the human world, unlike the rest of the natural world, is a world of values. 'Values' are the terms in which human beings articulate to themselves in a conscious way their aims and interests, the impediments to them, and the means of realizing them. In the name of these values, men criticize existing forms of society and set out to change them. This again is not a feature of human life which is given once and for all. It is a historical achievement. With the social development of human skills, technical and theoretical, men become increasingly capable of standing back from their society, assessing it, controlling it and changing it. But this whole dimension of human life is one which mechanistic and deterministic versions of Marxism tend to deny altogether. Sayers is in danger of denying it. I want to affirm it, and I see the dialectic of nature which I have defended here as the means of doing so.

Moreover, the need for such a dialectic is not just internal to socialist theory. Dualism and mechanistic materialism have been dominant tendencies in recent English-speaking academic philosophy. Under the influence of Wittgenstein, the philosophical tendency stressing the specificity of human action (reasons versus causes, etc.) has, though salutary, tended to encourage an anti-theoretical, anti-scientific attitude to human behaviour and institutions. In contrast there has re-emerged a philosophical materialism (so-called 'Australian' materialism), primarily in the form of a materialist theory of mind but also generalized into a materialist
ontology. This, though more sophisticated than traditional mechanistic philosophy, retains the basic features of a mechanistic materialism (the attempted theoretical elimination of 'consciousness' and 'secondary qualities', the elevation of physics and chemistry to the status of paradigmatic sciences, etc.). In this context, I see the working out of a non-reductionist materialism as a philosophical priority.

Notes
3. Jean-Paul Sartre, Critique of Dialectical Reason, especially Introduction ch. 1 and pp. 83–5; and 'Materialism and Revolution' in Literary and Philosophical Essays.
5. Certainly, as Sayers says (pp. 69–71), Hegel thinks that his dialectic is applicable to the empirical world. But he does not see himself as needing to establish it empirically.
6. I was also concerned to make another, simpler and less controversial, distinction between the subject-matter of the two kinds of dialectic. When Hegel, Engels and others offer explicit accounts of what they mean by 'dialectic', they link it, above all, with ideas of change, development, process, flux. But when we come to look at the dialectic in operation, we find it actually associated with two kinds of process. The dialectical development in works such as the two versions of Hegel's Logic, and the early part of the Phenomenology, is not a temporal process but a logical process, a logical progression of interconnected categories (and Engels's dialectic of categories draws on this). But in other works of Hegel's, and at other points in Engels's account, the idea of temporal development, of history and evolution, comes to the fore. It is, I think, undeniable that dialectic does involve these two kinds of process, logical and temporal. That neither of them is simply a 'reflection' of the other, I would assert with equal confidence. What I have now been arguing is that, whereas the stress on temporal process can be vindicated by appeal to the results of the empirical sciences, the logical progression of the categories has to be established by further, conceptual (a priori) investigation.

7. I should stress that what follows is an attempt to say how the conceptual dialectic and the temporal dialectic are connected only within a dialectic of nature. In so far as there is also a problem about the connection between the two aspects of dialectic in, for example, Marx's economic thought, the answer there would have to be different. Cryptically I would say that, there, the conceptual dialectic reveals the systematic structure of a historically-specific social totality; that it thereby reveals also the internal contradictions within that social totality; and that it thereby shows it to be historically transitory and to contain within itself the seeds of a new social totality.
8. It is given greater prominence in Anti-Dühring, especially Part I, ch. XII—but I find Engels's discussion there extremely unconvincing and open to the criticisms I have made in Essays 2 and 3.
10. Cf. the excellent discussion of this matter by Andrew Collier in Radical Philosophy 5.
12. Subsequently, however, we find Sayers making the much more acceptable assertion that Marxism does criticize capitalist social institutions, but that it also does more than this, since it provides a historical analysis of how they have come about and how they can be changed. With this I would certainly agree.
13. Cf. J. J. C. Smart, Philosophy and Scientific Realism. Papers by Place, Smart and Armstrong defending a materialist theory of mind are usefully collected in C. V. Bost, ed., The Mind/Brain Identity Theory.
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1 Guide To Reading

We have tried here to provide some guidance to the most important material dealing with the philosophy of dialectic. We stress that this is intended not as a complete list, but as a selection of some of the most basic and influential works. Editions cited are those to which we refer in the text. Other works referred to in the text are listed in Part II of this bibliography.

Hegelian Dialectic

The most accessible source for Hegel’s ideas on dialectic is the ‘Shorter Logic’, published in English as:

_The Logic of Hegel, (Part I of The Encyclopaedia of the Philosophical Sciences)_, trans. W. Wallace, 2nd edn, Oxford University Press, 1892 (referred to in text as _Enc. Logic_).

Chapter VI (secs. 79–83) of this work (‘Logic Further Defined and Divided’) is Hegel’s clearest statement of what he means by ‘dialectic’. Other valuable sections are those on: Being, Nothing and Becoming (secs. 84–8); Determinate Being (secs. 89–95); Measure (the relation of Quality and Quantity—secs. 107–11); Identity and Difference (secs. 112–20); Appearance (secs. 131–41).

Hegel’s ‘Larger Logic’ is a fuller treatment of the same material, but is more difficult and obscure, and is best read in conjunction with the Shorter Logic. The most recent English translation is


The most useful sections are the Introduction; Being,
Nothing and Becoming; Identity, Difference and Contradiction; The Absolute Idea.

Another important text is the Preface to the *Phenomenology of Mind*, and the Introduction is also relevant. The two English translations of this work are


These two translations are referred to in the text as B and M respectively.

A clear secondary account of Hegel's dialectic is the section entitled 'The Dialectic Method' in


For a very different account, emphasizing the continuities between the Hegelian and Marxist dialectic, see


**Marxist Dialectic**

Marx's classic statement of the relation between his and Hegel's dialectic is the Afterword to the Second German Edition in


This Afterword is also included in **MARX AND ENGELS, Selected Works**, Vol. I (see below).

Marx differentiates his use of dialectic from that of Proudhon in


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For the affinities and differences between Hegelian and Marxist dialectic, a much-discussed text is Marx's 1857 Introduction to the *Grundrisse*, available in various versions including


Other formulations of the Marxist dialectic frequently and standardly referred to are


For some characteristic statements of the view that dialectic applies to society rather than to nature, see

Attempts to state the relation between formal logic and dialectical logic can be found in:

Critical Works
The classic defence of the law of non-contradiction is

For useful critical discussions of dialectic by modern philosophers, see

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