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Introduction: Dialectics Requires Dialetheism

THIS ESSAY ARGUES FOR an intimate connection between dialectics and dialetheism. Dialectics, I will not attempt to define here; nor will I attempt to discuss all the uses that have been made of that notion. Rather, I will concentrate on the use that Hegel and, later, Marx made of it.

Dialetheism^[1] requires a little more comment. A dialetheia is a true contradiction, where "contradiction" has its ordinary, logical, sense. Thus, a dialetheia is a true statement of the form $A \& \sim A$. Dialetheism is, consequently, the view that there are true contradictions. In modern form, dialetheism is a somewhat novel and as yet unorthodox position. Typically, those who accept it have been driven to it by consideration of the logical paradoxes and connected problems.^[2] The burden of this article is, however, that although the name may be novel, the view itself is by no means so. In particular, Hegel's and Marx's dialectics is based on dialetheism. With the benefit of historical hindsight we may not, perhaps, find this overwhelmingly surprising. For no one before this century tried harder than Hegel to think through the consequences of thought thinking about itself, or of categories applying to themselves. And this is just the kind of self-referential situation that gives rise to the logical paradoxes. ^[1] The word is a neologism. For its genesis, see the preface to Priest, et al, 1989. ^[2] For example, see Priest, 1979. The first part of Priest, 1986, contains a discussion of dialetheism and further references.

1 Why It Is Necessary to Argue This

Despite this, it is very necessary in a contemporary context to argue that dialectics is dialetheic. Prima facie, Hegel's and Marx's dialetheism is an open-and-shut case. For example, in the *Science of Logic* (1969) Hegel says (in this and all subsequent quotations italics are in the original): . . . common experience . . . says that . . . there is a host of contradictory things, contradictory arrangements, whose contradiction exists not merely in external reflection, but in themselves. (440.) And asserts boldly a few lines later: External sensuous motion is contradiction's immediate existence. Something moves, not because at one moment it is here and at another there, but because at one and the same moment it is here and not here, because in this "here," it at once is and is not. Yet many, if not most, interpretations of Hegel assert that where Hegel talks of contradiction, and even asserts one, he must be understood as meaning something else. For example, Acton (1967a, 444): Hegel did not regard formal logic as a philosophical science, and he therefore rejected any view that its categories should dominate philosophical thought. Thus, the fact that the word "contradiction" is used in a certain way by formal logicians was not for him a reason for confining himself to that meaning. When Hegel was advocating the dialectical method, he had in mind a method in which opposites, conflicts, tensions and refutations were courted rather than avoided or evaded. Marxist philosophers have been just as content to interpret dialectical contradictions in a similar way. Thus, Cornforth (1971, 92): The key conception of dialectics is this notion of contradiction inherent in the very nature of things. . . . But what exactly do we mean by "contradiction"? If we consider the real, complex movements and interconnections of real, complex things, then we find that contradictory tendencies can and do exist in them. For example, if the forces operating in a body combine tendencies of attraction and repulsion, that is a real contradiction. And if the movement of society combines the tendency to socialise production with the tendency to preserve the private appropriation of the products, this is a real contradiction too. And Norman (Norman and Sayers, 1980, 49): The term "contradiction" is used to refer to the interdependence of opposed concepts. . . . The term "contradiction" is [also] used to refer to certain kinds of conflict. . . . 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. Moreover, it is not only Western philosophers who have subscribed to a non-literal interpretation

of "contradiction." For orthodox Soviet philosophers, until the early 1950s "contradiction" seems to have been taken to mean a variety of things (often not clearly distinguished), including opposing tendencies, diametrically opposed concepts, and logical contradictions (see Wetter, 1958, 349). It was, however, orthodox to hold that all of these, including the logical contradictions, obtain in reality. After the early 1950s, however, the idea that "contradiction" might mean logical contradiction became much less orthodox.[3] Thus Sheptulin (1978, 259): Aspects in which changes move in opposite directions and which have opposite trends of functioning and development are called opposites, while the interaction of these aspects constitutes a contradiction. And where modern Soviet philosophers are prepared to admit that a dialectical contradiction is a logical contradiction, they characteristically assert that these may occur "in thought," but not "in reality." Thus, belief systems, or whatever, may be inconsistent; but dialetheias cannot occur. Thus, Narskii (1965, 33; see also Narskii, 1970): Contradictory statements on the pattern "is and is not" either comprise erroneous assertions or formulations of problems requiring solution through a process of modification. [3] Some of the historical story is told in Lobkowitz, 1961. See also Comey, 1966. Now, while there are certainly examples of Hegel and Marx using the notion of contradiction in other than its logical sense, to insist that they never meant what they said literally when they claimed that contradictions occur in reality, or even when they asserted contradictions, inflicts such violence on their dialectics that the distorted product is but a pale shadow of its proper self. For the central theoretical notion of contradiction in Marx and Hegel is precisely the logical one. Other uses are derivative, and usually derive their significance from the central notion. So I shall argue; and in doing so, take on orthodoxy, East and West.

2 The Argument Against this Interpretation

I will mount the case for the thesis in subsequent sections. But first it is necessary to explain why so many have rejected this view, and see why this is mistaken. Hegel distinguished, quite rightly, between dialectics and formal logic - which was for him the Aristotelian logic of his day. The law of non-contradiction holds in formal logic; but formal logic is correctly applicable only in a limited and well defined area (notably the static and changeless); in dialectical logic, which applies in a much more general domain, the law of non-contradiction fails. Subsequent dialecticians accepted Hegel's distinction. But formal logic has now matured into modern Frege/Russell logic. This is immensely more powerful than syllogistic, and has brought the science of reasoning to age. Whether or not justified in doing so, most modern dialecticians - East and West - see Frege/Russell logic as giving a definitive account of the most abstract norms of correct and scientific thought. Dialectical logic, whatever else it is, must at least be compatible with this, which, of course, rules out dialetheias. Thus Hegel's and Marx's rejection of the law of non-contradiction, and, consequently, their notion of contradiction, have had to be interpreted non-literally, on pain of a charge of being unscientific, or of irrationalism. (For the former see, e.g., Colletti, 1975, 28. For the latter see Norman, in Norman and Sayers, 1980, 50.) Nor has the supposed significance of modern formal logic been lost on anti-Marxist writers. While defenders of dialectic have been doing their best to explain that Hegel and Marx did not mean what they said, Popper (1940, 317; see also Acton, 1967b, 392), with characteristic charity, assumed that Hegel and Marx did mean what they said, and used this assumption together with some baby logic to reduce dialectics to absurdity: ... it can easily be shown that if one were to accept contradictions then one would have to give up any kind of scientific activity: it would mean a complete breakdown of science. This can be shown by proving that if two contradictory statements are admitted, any statement whatever must be admitted; for from a couple of contradictory statements any statement whatever can be validly inferred. Thus, modern dialecticians, most of whom

know very little formal logic, have allowed themselves to be intimidated, and even brow-beaten, into reinterpreting dialectical contradictions. This reaction, though understandable in the light of the success story which is modern logic, is rather naive. Someone who accepts that there are true contradictions, and therefore that some things are both true (A) and false ($\sim A$) is hardly going to accept the unargued assumption of Frege/Russell logic that truth and falsity are mutually exclusive. Truth and falsity overlap; whence it is possible for things of the form $A \& \sim A$ to be true. It follows, then, that Popper's much vaunted inference - $A \& \sim A$; hence B - is quite invalid, since the premise may be true while the conclusion may not be. Frege/Russell logic is, after all, only a theory of the norms of reasoning - and like most theories it is almost certainly false. It is notable that 20th century logicians themselves - as opposed to those who merely quote it - have been under no illusions about the contentious and often shaky nature of some of the assumptions built into the Frege/Russell theory. Though the mutual exclusiveness of truth and falsity may not have been questioned (until recently), many other pre-suppositions have been questioned, and often rejected: that truth and falsity are exhaustive; that all terms denote; that the conditional is truth functional; that "existential quantification" has existential import; and so on. Dialecticians, even those who made the above observation, would have been hampered in standing up to being bludgeoned with the Principia Mathematica due to the fact that there was no articulated formal theory of logic satisfactory for their purposes. This has now changed. Though only just starting to receive the attention they deserve, paraconsistent logics - logics where Popper's inference fails - have undergone a very impressive development in the last 20 years.[4] Though this paper is not on formal logic, I will indicate the outlines of at least one of these logics (in fact the one I take to be the most satisfactory for dialethic purposes), so that even those who know little formal logic will at least be able to see through the claim that formal logic shows dialetheism to be false, or even that Frege/Russell logic provides the only simple, intuitive, logical semantics.

3 Dialethic Logic

Frege/Russell logic assigns to each sentence one of the truth values T (true) and F (false). Dialethic logic: may assign, in addition, both values (true and false). (Thus, technically, semantic values are non-empty subsets of {T,F}.) The fact that a sentence is true does not, therefore rule out its being false, and vice versa. Given the truth values of basic sentences, the truth values of complex sentences can be worked out by "truth table" conditions. So, for example, the truth conditions of negation are:

$\sim A$ is true just if A is false

$\sim A$ is false just if A is true

And those for conjunction are:

$A \& B$ is true just if A is true and B is true

$A \& B$ is false just if A is false or B is false

These truth conditions are, of course, quite orthodox. The truth conditions for disjunction are also exactly what one would expect. Notice that if A is true and false, so is $\sim A$; and so, moreover, is

$A \& \sim A$. In particular, it is true, as dialetheists claim. Logical truth and logical consequence are also defined in the orthodox fashion:

A is a logical truth just if A is (at least) true under all assignments of values

[4] An introduction to these can be found in Priest and Routley, 1984. Further discussion can be found in ch. 3 of Priest and Routley, 1983, which is reprinted as the introduction to part 2 of Priest, et al, 1989.

A is a logical consequence of B just if every assignment of values that makes B (at least) true makes A (at least) true

It may be interesting to note that A is a logical truth if A is a two-valued tautology. Thus, these semantics give the same set of logical truths as does orthodox logic. Thus, both $A \vee \sim A$ and $\sim(A \& \sim A)$ are logical truths. The second of these may seem surprising initially. But if a certain contradiction, $A \& \sim A$, may be true, there is no reason why the "secondary contradiction" $(A \& \sim A) \& \sim(A \& \sim A)$ should not also be true. The semantics do, however, give a notion of logical consequence different from the orthodox one. In particular, and as might be expected, B is not a consequence of $A \& \sim A$, as may be seen by simply assigning B the value F, while assigning A both T and F. It is an entirely straightforward matter to extend these propositional semantics to a semantics for full first-order logic. I will not give details here (they can be found, e.g., in Priest, 1987, ch. 5), but for future reference I will say a little more about identity. Identity statements of the form $a = b$ may be both true and false, like all other statements. A little care has to be taken concerning how, exactly, truth values are assigned; but providing one does this, all the standard principles of identity, such as the law of identity ($a = a$) and the substitutivity of identicals, are assured. As usual, I will write $a \neq b$ for $\sim a = b$. One final, and non-standard, piece of logical machinery will also prove useful in the subsequent discussion. We have, in English and other natural languages, a way of nominalizing sentences. The most uniform way of doing this is simply by prefixing "that" to the sentence. Thus the sentential phrase "John is happy" becomes the noun phrase "that John is happy." But there are also other ways: for example, turning the verb into a gerund. Thus, in the example at hand we obtain "John's being happy." Though orthodox logic has no formal analogue of this nominalizing, such is necessary and quite standard in discussions of the semantics of propositional attitudes.[5]

For our purposes, we need to assume [5] See, for example, the discussion in Montague, 1973. Note that Montague has a very sophisticated theory of the behavior of $\hat{\ }^$. What we require of the notion will be much simpler, though quite compatible with his account. In particular, on Montague's approach, $\hat{A} \neq \hat{\sim A}$ is true provided that A is not T and F at all worlds. very little about the nominalizer. All we need is an operator, which I will write as $\hat{\ }$ (and which may be read as "that") such that if A is any sentence, \hat{A} is a noun phrase, and therefore denotes an object. Which object it denotes, we may assume very little about. However, it is fairly clear that in some sense \hat{A} and $\hat{\sim A}$ are opposites. (Think of John's being happy and his not being happy; or John's loving Jill and John's not loving Jill, etc.) Since an object is not the same as its opposite, it is natural to require that $\hat{A} \neq \hat{\sim A}$. As will now be clear to those who have a modicum of logic, with the exception of the $\hat{\ }$ operator, the above account is almost exactly the same as the orthodox one. In fact, if we were to add the condition that no sentence is assigned both T and F then we would have exactly Frege/Russell logic. Thus these semantics are a generalization of orthodox logic which just cover a case that orthodox logic ignores; and conversely, orthodox logic is just a special case of these semantics which ignores a dialectically important case. In particular, if the situation about which we

are reasoning is a consistent one, so that there are no dialetheias, then classical logic is quite applicable. (The precise understanding of this claim is, however, a sensitive issue, on which see Priest, 1987, ch. 8.) Thus we may stretch Hegel's claim a little as follows: (Frege/Russell) formal logic is perfectly valid in its domain, but dialectical (dialethic) logic is more general. But what is the domain of classical logic? An easy answer is "the consistent." But this is fairly vacuous until we have said which areas are, or may reasonably be expected to be, consistent. There may be room for debate about this, but dialecticians have had a standard line here: the static is consistent; only when change enters the picture do contradictions arise. At any rate, it is quite compatible with the claim that dialectics is based on dialetheism that dialecticians, such as Marx, should castigate other writers for contradicting themselves in certain contexts.[6] Those contexts are just not of the kind where a contradiction is to be expected. (The critical use of *reductio ad absurdum* is discussed further in Priest, 1986.) [6] Thus Marx: "But then he [Adam Smith] suddenly changes the whole basis of his distinction and contradicts what he started the whole investigation with a few lines earlier" (Capital, Vol. II, 273). That Marx sometimes criticizes people for being in- consistent is used against the dialethic interpretation of dialectics by Havas, 1981. See also Norman and Sayers, 1980, 49. Dialethic logic is certainly not dialectics; but it is quite sufficient to show that dialetheism is compatible with the rigor of a non-trivial formal logic.[7] And protected by the above considerations against the slings and arrows of outrageous logical claims, we can move on to dialectics proper.

4 Motion: An Illustration

It will be useful, to start with, to give a simple illustration of the way dialethic logic may be applied to dialectics. Let us take as an example the quotation from Hegel in section 1 above, that to be in a state of motion (or change in general) is to both be and not be in a certain spot at a certain time. Suppose a body, *b*, occupies a certain spot, *s*, at a certain time. What is the instantaneous difference between its being in motion and its being at rest? A Russell would say "none": being in motion is not an intrinsic, but a relational state. Hegel would say "consistency." [8] Let *A* be the sentence "b is at spot *s*" Then if *b* is at rest, *A* is true, and true only (T). If *b* is in motion, then *A* is true, since *b* does indeed occupy the spot *s*; but, equally, since it is in motion, it has already started to leave that spot; hence *b* is not still there: $\sim A$ is true. Thus *A* is both true and false (T and F). Whether or not Hegel was right about this is an issue I will not discuss here (see Priest, 1985). The relevant point is just that dialethic semantics gives us a perfectly literal way of understanding what Hegel says. Some dialecticians would argue that Hegelian contradictions cannot be of the kind illustrated here. For this contradiction is a merely extensional contradiction: a logical contradiction of the form $A \& \sim A$, where there is no essential connection between the conjuncts. One can, for example, infer each of *A* and $\sim A$ from this contradiction and assert each independently. By contrast, dialectical contradictions are intensional. There is an internal relation between the conjuncts which is not captured by a mere extensional conjunction. Thus, dialectics [7] In particular, it does not "obliterate the distinction between truth and falsity" or "abandon . . . the idea of entailment and deductive argument," as Norman claims (Norman and Sayers, 1980, 49). [8] The contrast is discussed in Priest, 1985, which also elaborates on the dialethic connections. For more formal details see Priest, 1982.

lays stress on the fact that this two-fold interrelation of opposites is to be conceived, not "eclectically," as mere conjunction or succession, but dialectically, in the sense that these opposites are so far intertwined that the one cannot exist without the other. Not only do they not exclude each other, they presuppose and reciprocally condition each other. (Wetter, 1958, 340.) In particular, it is not permissible to detach either conjunct from the other and assert it, without falsifying the description. (This criticism is made in Havas, 1981.) To a certain extent this objection is simply

answered. Less than the whole (relevant) truth can itself be quite misleading and give a false picture of the situation. Thus, suppose your car runs out of petrol and you ask me where the nearest garage is. If I detach and assert only the first conjunct of "There is a garage around the corner but it is closed" my answer will be highly misleading. There is a conversational implicature, to use the notion of Grice (1975), that relevant information has not been omitted. But in dialectical contexts, the distinction between something's being true (only) and its being true and false is quite crucial. Thus to assert only A when A&~A is true is equally misleading. As Hegel himself puts it (1969, Vol. I, book 1, section 1, ch. 10, 91): The commonest injustice done to a speculative [i.e., dialectical] content is to make it one-sided, that is, to give prominence only to one of the propositions into which it can be resolved. It cannot then be denied that this proposition is asserted; but the statement is just as false as it is true, for once one of the propositions is taken out of the speculative content, the other must be equally considered and stated. Nonetheless, as Hegel and most other dialecticians have stressed, dialectical contradictions are no mere "accidental" conjunctions. In some sense the contradictory conjuncts depend on each other, so that the one could not exist without the other. Thus, there should indeed be a more intimate relation between dialectical contradictories than mere extensional (external) conjunction. What this is, we will be in a position to see by section 8.

5 The History of Hegel's Dialectic

I can now no longer put off the promised argument that dialectical contradictions are dialetheias, and that this notion of contradiction is the central one in dialectics. Since much of what is at issue is the interpretation of what Hegel and Marx said, no mere quoting of texts can suffice for this. I will argue historically: given the philosophical influences acting on Hegel and Marx, and what Hegel, in particular, says about them, there is no other very sensible interpretation.[9] Let us start with Hegel.[10] An important tradition that influenced Hegel was that of the medieval (and especially Christian) Neo-Platonists and their Renaissance successors (see Kolakowski, 1978, Vol I, ch. 1). But the Neo-Platonists certainly held that contradictory things were true of the One. For example, Plotinus says that it is everything and nothing, everywhere and nowhere (Ennead, V. 2, 1; see also Gilson, 1972, 43ff). Eckhart says that God is being and yet, beyond being, and thus not being (Smart, 1967, 450). Cusa says that God is the reconciliation of all opposites (De Docta Ignorantia, 1, XXII). All things are thus true (and false) of God: ... in no way do [distinctions] exist in the absolute maximum [the One]. . . . The Absolute maximum ... is all things and, whilst being all, is none of them . . . (Ibid 1, IV, in Heron, 1954, 13.) In the Neo-Platonist One (or God), which created man, finally for the latter (and, according to some, the former also) to find fulfillment in the other, Hegel saw his Absolute. As he puts it in the Lectures on the History of Philosophy (1895, 548): "The thought of totality, the intelligible world, is the concrete Idea as we have seen it with the Neo-Platonists." It is natural, then, that Hegel should also take over the idea that the Absolute is literally contradictory. Still, since more prosaic commentators will try to argue that the Neo-Platonists did not intend their contradictions literally, or, at least, that if they did, Hegel emancipated himself from the loonier aspects of his predecessors, let us move forward in time to the proximate influence on Hegel, who certainly meant contradiction when he said it, and who does not (?) have a loony fringe: Kant. [9] Some other arguments are given by Sayers, one Marxist who most certainly does mean contradiction when he says it, in Norman and Sayers, 1980 (see especially ch 4). [10] The material in the next three sections draws heavily on Priest and Routley, 1983, chs. 1 and 2, reprinted as the introductory chapters of part 1 of Priest, et al, 1989. My account of Hegel's and Marx's dialectics here does, however, differ from that given there in some important respects. The relevant part of Kant for our purposes is the section of the Critique of Pure Reason called the Transcendental Dialectic, and in particular that part of it called the Antinomy of Pure Reason. In this, Kant produces four pairs of arguments, each for a pair of contradictory conclusions. However, neither of each pair of arguments is fallacious in any simple sense; rather, the contradictions are an

outcome of reason itself (A297; B354ff; A339; B397). Now, if such arguments are sound, their conclusions are true. Thus, Kant is sailing close to the dialetheic wind. Close, perhaps, but not with. For Kant diagnoses the same subtle flaw in all of the arguments: the application of a category outside its legitimate bounds (e.g., A498, B526ff). For example, in the first argument of the first pair there is a step from "everything has a cause" to "the World (i.e., totality of existents) has a cause." Kant suggests that although the principle that every event has a cause is true, the "every" can refer only to objects "given to us in intuition," that is, experienced. The World, being an unbounded totality, is not given to us in this way, but merely apprehended by reason. The crux of Kant's position is that reason and its categories are dependent for content upon experience. Indeed, that is what he takes the antinomies to show. It is difficult to find direct arguments for this assumption, other than some very strong form of positivism (such as Hume's). And once this is rejected - and reason, far from being parasitic on experience, is admitted to lead a life of its own - Kant's position on the antinomies collapses. Reason, by unimpeachable arguments, produces contradictions, which must therefore be true. This is exactly the line that Kant's successors took. In virtue of the centrality of this for the point at issue, I will quote Hegel on the matter at some length. Discussing Kant, he says (1975, section 48, 76-77): In the attempt which reason makes to comprehend the unconditioned nature of the World, it falls into what are called Antinomies. In other words, it maintains two opposite propositions about the same object, and in such a way that each of them has to be maintained with equal necessity. From this it follows that the body of cosmical fact, the specific statements descriptive of which run into contradiction, cannot be a self-subsistent reality, but only an appearance. The explanation offered by Kant alleges that the contradiction does not affect the object in its proper essence, but attaches only to the Reason which seeks to comprehend it. In this way the suggestion was broached that the contradiction is occasioned by the subject-matter itself, or by the intrinsic quality of the categories. And to offer the idea that the contradiction introduced into the world of Reason by the categories of the Understanding is inevitable and essential was to make one of the most important steps in the progress of Modern Philosophy. But the more important the issue thus raised, the more trivial the solution. Its only motive was an excessive tenderness for the things of the world. The blemish of contradiction, it seems, could not be allowed to mar the essence of the world; but there could be no objection to attaching it to the thinking Reason, to the essence of mind. Probably nobody will feel disposed to deny that the phenomenal world presents contradictions to the observing mind; meaning by "phenomenal" the world as it presents itself to the senses and understanding, to the subjective mind. But if a comparison is instituted between the essence of world and the essence of mind, it does seem strange to hear how calmly and confidently the modest dogma has been advanced by one, and repeated by others, that thought or Reason, and not the World, is the seat of contradiction. It is no escape to turn round and explain that Reason falls into contradictions only by applying the categories. For this application of the categories is maintained to be necessary. . . . Thus, Kant's evasion of the contradictions is not on. These must be true of the World. That there are true contradictions was also concluded by the last of the influences on Hegel that I will consider, Fichte. Fichte, like Hegel, started from Kant, and like Hegel criticized the Kantian postulation of the thing-in-itself (Taylor, 1975, 36, 77). This left only the other part of the Kantian ontology: the transcendental ego. The nature of the ego, or self, is to think; but there is nothing to think about except itself; and it is impossible to think something unless there is something else to contrast it with. (So at least thought Fichte.) Hence, the self had to create something different, the non-self, against which it could conceive itself. (This is precisely Reason leading a life of its own.) It therefore produces contradiction. Specifically, the non-self must also be self, since nothing else exists. As Fichte puts it (quoting from Heath and Lachs, 1982, section 3, 106): ". . . insofar as the not-self is posited [in the self], the self is not posited in the self; but "... insofar as the not-self is to be posited [in the self], the self must be posited therein." Thus, the self is both posited and not posited, and the posited is both self and not-self. Or, more pithily, as Fichte puts it a few lines later: self = not-self and not-self = self. As regular readers of Fichte will know, the story ends happily. The self (thesis), by its

cunning postulation of the not-self (antithesis), comes to understand what it is, viz. both, and the two live together happily ever after (synthesis), even giving birth to a new little antithesis, which perpetuates the tradition. Hegel, of course, criticized Fichte. But his only criticisms were, essentially, twofold: first, that Fichte had not elevated the transcendental ego into something grander, Geist; and second, that he had misunderstood the nature and significance of the final synthesis (1895, 499). This aside, Hegel took over Fichte's dialectic wholesale, and, particularly for present purposes, the contradictory nature of the alienated state of the self. As Hegel himself, though hardly pellucidly, put it (1895, 549-50): ... in being self-conscious [self-consciousness] is independent, but still in this independence it has a negative relation to what is outside self-consciousness. This is infinite subjectivity, which appears at one time as the critique of thought in the case of Kant, and at another time, in the case of Fichte, as the tendency or impulse towards the concrete. Absolute, pure, infinite form is expressed as self-consciousness, the Ego. . . . Self-consciousness thus . . . recognizes its positive relation as its negative, and its negative as its positive, - or, in other words, recognizes these opposite activities as the same, i.e., it recognizes pure Thought or Being as self-identity, and this again as separation. Hegel's dialetheism is therefore established.

6 Contradiction in Hegel's Dialectic

This being so, let us now look at the central role that dialetheias play in his dialectics. It will be useful to distinguish three aspects of Hegel's dialectic. First, there is the fundamental movement of Geist. I will call this the global dialectic. Then there are the local developments by which this is achieved. One of these concerns the development of the categories; the other concerns the development of people and societies. I will call these the logical and historical dialectics respectively. The global dialectic is Hegel's version of Fichte. The transcendental ego, or spirit (Geist) as it has become, has as its essence, or telos, to think. Since it is all there is, it must think about itself. And since it cannot do this without a contrast, it must create its opposite, nature (Taylor, 1975, 89). Exactly as with Fichte, this generates a situation that is literally contradictory. For spirit, s , is then both spirit and not spirit. In the notation of section 3: $(s=s)\&(s\neq s)$. Alternatively, nature, n , which is not spirit, is spirit: $(n\neq s)\&(n=s)$. The existence (truth) of this contradiction allows spirit to think (understand) what it is: spirit and nature, spirit and not spirit; and thus to achieve its telos, in which form it is the Absolute. It should be noted that the Absolute is still a contradictory state. Nature and spirit do not annihilate each other; each still exists, requiring the other. In the final state of the dialectic, the contradiction is said to be resolved; or aufgehoben; but as Hegel is often at pains to point out, the state which is aufgehoben continues to exist. Resolution, in this context, is more like the resolution of a puzzle: we know the answer. The puzzle does not cease to be a puzzle; it just ceases to puzzle us. (A riddle is still a riddle even if we all know the answer.) The achievement of the Absolute in the global dialectic is not, however, arrived at in a trice. Rather, the production of a category that allows spirit to think itself is achieved only after a period of conceptual evolution, the logical dialectic. The most primitive category, being, produces a contradiction. This contradiction produces a novel category, which is itself contradictory. This, in turn, produces a novel category. And so it goes, until we arrive at the Absolute Idea (Taylor, 1975, 339) - a category which applies to the biggest contradiction of them all, the Absolute. This allows thought to think itself. The inspiration for the logical dialectic is Kant's Antinomy of Pure Reason. As we noted in the last section, Hegel concluded that the principles of reason which govern the use of the categories in Kant's antinomies entail a contradiction: the categories are therefore inconsistent.

Moreover, the Kantian antinomies are, for Hegel, but the tip of an iceberg. All categories - or at least all the important ones - are contradictory. It is just this which produces the logical dialectic. (See Taylor's excellent discussion of all this; Taylor, 1975, 228.) The arguments used in the Logic to show that the various categories are inconsistent are a motley and rather unconvincing crew. The same may be said of the ways in which the contradictions in one category give rise to another. However, it may help to illustrate the process with one example, that of being and becoming (Hegel, 1969, Vol. I, book 1, section 1, ch. 1). Consider being. If something, a , were merely to be, that is, to have no properties other than being, then there would be nothing to distinguish it from an object that has no properties at all, i.e., that is not. It would therefore both be and not be, $Ba \& \sim Ba$ (where B is the one place predicate of being). Thus, we are led to a category of things, a , whose being is their non-being $^{\wedge}Ba = ^{\wedge}\sim Ba$. These are the things that are coming into being or out of it. (Recall the discussion of change in section 4.) This is therefore the category of becoming. The logical dialectic, though a development, is not a process in time. It is, however, connected with one that is. For spirit is embodied in nature, and, particularly, humankind and its social institutions; and these change in the historical dialectic. Each social institution, being a fragment of Geist, reflects its properties to a certain extent. (Rather as the whole of an image is visible in any fragment of a hologram.) In particular, it is contradictory. Thus, it also has its own telos which it must try to achieve by producing a contradictory state. However, unlike the similar maneuver with the whole, this maneuver results in the destruction and replacement of the situation. Contradictions are therefore fatal to parts of the whole (finite beings); not so the whole itself (Taylor, 1975, 105ff). It follows that the state which succeeds the old does not transcend (aufhebt) it in quite the same way that the Absolute transcends the spirit/nature contradiction. In particular, the old contradiction is no longer true (though new ones will be). Hegel's most famous example of this kind of situation is that of the master/slave relationship (Taylor, 1975, 153-7). At a certain stage, people need the recognition of others for their development (telos). Since they have not learned to cooperate properly, the only way that this recognition may be achieved is by force. Others must be enslaved and made to recognize. But the enslavement of others dehumanizes them; and thus, even if they are forced to recognize the master, they cannot provide the recognition that the master requires. By a dialectical irony, however, the situation does provide for the development of the slave. For the slave, unlike the master, is required to labor. Because of this, the slave gains control over the world, which is freedom. Moreover, the slave lives in a precarious position: at any moment he may be killed; thus his self-awareness is heightened, and he becomes aware of his freedom. This paves the way for the overthrow of the slavery. Before the overthrow, the state of the slave is literally a contradictory one: he is both free and bound (not free). The contradictory state of forced labor has, of course, been stressed by Marxists, and we will take this up in the next section. But perhaps the person who has brought out the contradictory nature of the freedom produced by oppression most vividly is Sartre. For example, he says (1949, 12, my translation): Never have we been freer than under the German occupation. We had lost all our rights, and primarily that of speaking; we were insulted to our faces every day and we had to be silent. We were deported en masse, as workers, as Jews, as political prisoners; everywhere on walls, in newspapers, on the screen, we would meet the vile and insipid face that our oppressors wished to give us of ourselves: Because of all that we were free. Since the Nazi poison slipped into our very thoughts, every pure thought was a victory; since an all-powerful police sought to constrain us to silence, each word became precious, like a declaration of principle; since we were surrounded, each gesture carried the weight

of a commitment. . . . It is likely to be objected that this contradictory state is not literally so, since the oppressed person is free and bound in different respects. More generally, it is often claimed that dialectically contradictory states are never dialetheias since the apparently contradictory predicates are true in different respects (see, e.g., Norman and Sayers, 1980, 30-1). Several points are relevant here. The first is that the general claim has little going for it. There is nothing to support it save a dogmatic assertion that dialetheias are impossible. Moreover, this is the first contradiction we have met where this charge looks even remotely plausible. Secondly, however, it must be admitted that some contradictions signaled by dialecticians do seem to be only apparent contradictions, the appearance being dispelled once the respects in which the contradictory predicates apply are spelled out. The third point is that, despite this, the charge that a contradiction is only apparent it often much harder to make stick than is supposed. The quotation from Sartre illustrates this. What are the senses in which the occupied people were free and not? They were not free in that they could not, because of the occupation, do exactly as they chose. But, as Sartre stressed, this made them realize that they could do exactly as they chose. But this is no consistent disambiguation: it is just as contradictory. One may be tempted to say that they were not free in the sense that, though they could do exactly as they chose, they would be punished for doing many of the things they wanted to do. But this is just playing fast and loose with the notion of doing as one chooses. The situation where one must be silent or be shot is a paradigm of one which would correctly be described as involving no real choice. The trouble here is that the notion of having a choice does not have the crystal precision of, e.g., mathematical predicates. We use several criteria for deciding whether a free choice is made. Each is normally sufficient for the correct attribution of the phrase; yet sometimes these may not all line up on the same side of the field. And if they do, the only adequate description of the situation may well be a contradictory one. Neither will it do to insist that the many criteria of application show that the phrase is ipso facto ambiguous. For quite unambiguous phrases, such as "has a temperature of 700°C," may have many different criteria of application; and these are by no means logically guaranteed coincidence.[11] Thus, a summary dismissal of putative contradictions on the grounds of "difference in respect" is quite superficial.

7 Contradiction in Marx's Dialectics

Having discussed Hegel, let us now turn to Marx, who inherited his dialectic from Hegel. Marx's dialectic involves a somewhat radical re-interpretation of Hegel's, and certainly has a rather different emphasis. But structurally, it is very similar. We may, as in Hegel, distinguish between the global dialectic and the two local dialectics, logical and historical. Under the influence of Feuerbach, the young Marx reinterpreted Hegel's Geist as Man or, better, humanity. Hegel's global dialectic therefore became the dialectic of humanity. To be a person is to have a certain telos, which is self-development. This is to be achieved not by thinking, but by working, labor. But the labor alienates itself and comes to exist in contradiction to people. Alienated labor (objectified labor) is, of course, just capital (essentially the heart of the labor theory of value) existing as private [11] For a further discussion of contradiction and multicriterial terms, see Priest and Routley, 1983, ch. 3, section 1, and ch. 5, section 2. These chapters are reprinted as the introductions to parts 2 and 4 of Priest, et al, 1989. property. Thus we have the fundamental contradiction between people (labor) and capital (dead labor). The contradiction is re-solved by the production of a communist society where private property disappears, people labor for themselves, thus fulfilling their telos. Despite the re-interpretation, the similarity with Hegel is obvious. Moreover, as in Hegel,

the alienated state is literally a contradictory one. Humanity, h , while still being humanity, $h=h$, loses its essence ("species life"), becomes dehumanized. Thus, humanity is not humanity, $h \neq h$. Marx sometimes makes the point, not with respect to humanity, but with respect to its essential, defining, characteristic: labor. For example, he says (1977, 110): Estrangement [Alienation] is manifested not only in the fact that my means of life belong to someone else . . . but also in the fact that everything is itself something different from itself - that my activity [labor] is something else - ... Of course, the labor is still my activity; otherwise it would not be different from itself. Thus the labor is both identical to itself and different from itself: $(I=I) \& (I \neq I)$. The most important structural difference between Hegel's and Marx's dialectics for the present concern is that in the final stage of Marx's dialectic the resolution of the contradiction actual-ly removes it; there is no contradiction between labor and capital in a communist society. Marx's discussion of the global dialectic occurs mainly in his earlier works, and especially the Economic and Philosophical Manuscripts. (But see also Capital, Vol. I, ch. 32.) His discussion of the local dialectics is more prominent in the later works, notably the Grundrisse and Capital Of these dialectics, the logical dialectic is perhaps of lesser importance. In his logical dialectic, Hegel deduced the categories of Thought by considering the contradictions in each. In the same way, Marx deduces categories, but this time they are the categories of Man, and particularly of economics. This is most evident in the early chapters of Vol. I of Capital Starting with the basic notion of a commodity, Marx arrives at the notions of money, capital and so on. (See the excellent discussion in Ilyenkov, 1960, ch. 5; see also Ilyenkov, 1977, essay 10.) How plausible all this is I need not discuss, but an example will clarify the situation: Marx's deduction of the notion of money from that of the commodity. Human artifacts may be used or they may be exchanged. But if they are being used they are not being exchanged, and vice versa. Marx records this by saying that an object, a , may be a use value, U_a , or an (exchange) value, V_a , but not both, $\sim(U_a \& V_a)$: "The same commodity cannot, therefore, simultaneously appear in both forms in the same expression of value. These forms exclude each other as polar opposites" (1976, 140). But in the exchange of a commodity, the commodity is related to another as both use and (exchange) value; it is therefore both: $U_a \& V_a$. The contradictory property is acquired at the point of (ex)change (1976, 152): A commodity is a use-value or object of utility, and a "value." It appears as the two-fold thing that it really is as soon as its value possesses its own particular form of manifestation, which is distinct from its natural form. This form of manifestation is exchange value, and the commodity never has this form when looked at in isolation, but only when it is a value-relation or exchange relation with a second commodity of a different kind. Thus we are led to the existence of something, a , whose being a use value is exactly its being an (exchange) value $^{\wedge}U_a = ^{\wedge}V_a$, money, which mediates and therefore allows the exchange relation (1976, 198): We saw . . . that the exchange of commodities implies contradictory and mutually exclusive conditions. The further development of the commodity does not abolish these contradictions, but rather provides the form within which they have room to move. This is, in general, the way in which real contradictions are resolved. The historical local dialectic is undoubtedly the most important one in Marx's later writings. Each social practice or institution has a telos (now thought of as an immanent tendency). The realization of this forces it into a contradictory state, which cannot be sustained; whence it disappears. Perhaps the most famous example of this is the contradiction between the forces of production and the relations of production in the Preface to the Critique of Political Economy. The forces of production have a certain telos. In order to fulfill this, at a certain stage in their development, they produce the social relations of capitalism. But ultimately the forces undercut those very relations, which therefore cease. The capitalist state of affairs is literally a contradictory one for Marx. In fact, it realizes a number of

contradictions. For example, production is social and yet private (Capital, Vol. II, ch. 27); and the laborers (like Hegel's slaves) are both free and bound. Again, the accusation may be leveled that these states are not literally contradictory, since the contradictory predicates are true in different respects. In response to this, the points made in reply to the same charge against Hegel are pertinent. The charge may have some justice; but to suppose that this is always so is just wishful thinking. In the last section we saw that it was not so easy to separate freedom from bondage in the case of the slave. This point will be reinforced if we consider Marx's analysis of the similar predicament of the wage-slave. For the freedom of the wage-laborer is not separable from his bondage, but is inextricably bound up with it. As Marx explains, it is the nature of his labor which makes the laborer both bound and free, so that his freedom is his bondage. With unemployment on a world scale a chronic reality, with the miserable cry of the perpetually unemployed ringing in our ears, the following words of Marx have an un- mistakable verisimilitude ("Adam Smith: Work as Sacrifice," Marx, 1973, 611): In the sweat of thy brow shalt thou labour! was Jehova's curse on Adam. And this is labour for [Adam] Smith, a curse. "Tranquillity" appears as the adequate state, as identical with "freedom" and "happiness." It seems quite far from Smith's mind that the individual, "in his normal state of health, strength, activity, skill, facility," also needs a normal portion of work, and of the suspension of tranquillity. Certainly, labour obtains its measure from outside, through the aim to be attained and the obstacles to be overcome in attaining it. But Smith has no inkling whatever that this overcoming of obstacles is in itself a liberating activity - and that, further, the external aims become stripped of the semblance of merely external natural urgencies, and become posited as aims which the individual himself posits - hence as self-realisation, objectification of the subject, hence real freedom, whose action is, precisely, labour. He is right, of course, that, in its historic forms as slave-labour, serf- labour and wage-labour, labour always appears as repulsive, always as external forced labour; and not-labour, by contrast, as "freedom and happiness." This holds doubly: for this contradictory labour. . . The forced but self-creating nature of wage-labor is not the only criterial tension existing in this contradiction. There is also that between the legal position and the harsh reality of the laborer's situation. Again Marx (1976, ch. 10, 415-6): It must be acknowledged that our worker emerges from the process of production looking differently from when he entered it. In the market, as owner of a commodity "labour power," he stood face to face with other owners of commodities, one owner against another owner. The contract by which he sold his labour power to the capitalist proved in black and white, so to speak, that he was free to dispose of himself. But when the transaction was concluded, it was discovered that he was no "free agent," that the period of time for which he is free to sell his labour-power is the period of time for which he is forced to sell it, that in fact the vampire will not let go "while there remains a single muscle, sinew, drop of blood, to be exploited." For "protection" against the serpent of their agonies, the workers have to put their heads together and, as a class, compel the passing of a law, an all-powerful social barrier by which they can be prevented from selling themselves and their families into slavery and death by voluntary contract with capital. These tensions in the criteria for freedom mean that the only accurate way of describing the wage-laborer's situation is as being both free and not free. The quotations make it quite clear what considerations ground each of these attributions; but it in no way follows that freedom falls apart neatly into different aspects, like an over-cooked chicken. Rather, as with a raw chicken, separation can only be done by violence. Before we leave Marx, a word about Engels. Engels has a much plainer literary style than either Marx or Hegel. Because of this he is, of the three, the one whose commitment to dialecticism is least gainsayable. Thus, he says (1975, ch. 12, 139, 140): Motion itself is a contradiction: even simple mechanical change of place can only come about through a body at one and the same moment of time being both in a place and in another place, being in one and the same place and also not in it. Life consists precisely in this, that a living thing is at each moment itself and yet something else. Life itself, therefore, is a contradiction that is objectively present in things and processes, and is constantly asserting and resolving itself. Engels' evident dialecticism has not found favor with those who have wanted to interpret dialectics in such a way as to write out its dialecticism. This has led to criticism, and even

some abuse, from western writers: Engels' views are crude and unsophisticated. It should be clear now that this does Engels a great injustice; his views on contradiction are no different from those of Hegel and Marx: he just expresses them in a language that the man on the Clapham omnibus can understand. Where Engels is due for some censure is in his enthusiasm for seeing contradiction where it does not exist - an enthusiasm which has carried over to many subsequent Marxists. For example, the claim that the square root of -1 is a contradictory entity (1975, 141) demonstrates an unfortunate naivete about mathematics. (Though modern critics should remember that he, unlike they, had not had the opportunity to read Weierstrass, Dedekind and the other 19th-century mathematicians who helped sort out the morass in the foundations of analysis.) Even in seeing contradictions under the bed, however, Engels was merely accentuating a tendency that was already present in the subject. Hegel was already straining to show that many of the so-called contradictions in the local dialectics are literally so; and Marx was never one to let pedantry get in the way of a good bit of rhetoric (Poverty of Philosophy, ch. 2, section 5, quoting from McLellan, 1977, 215): Meanwhile the antagonism between the proletariat and the bourgeois is a struggle of class against class, a struggle which carried out to its highest expression is total revolution. Indeed, is it at all surprising that a society founded on the opposition of classes should culminate in brutal contradiction, the shock of body against body, as its final denouement?

8 Identity in Difference

Having discussed the occurrence and role of dialectics in Marx's and Hegel's dialectics, I now want to return to the question, left hanging at the end of section 4, of the exact nature of dialectical contradictions. Many of the dialectics that we have come across in the preceding discussion are of the form $(a=b) \& (a \neq b)$, something's being both identical with, and different from something (else?). This is Hegel's (in)famous notion of identity in difference (Taylor, 1975, 80). Though many have been puzzled by this notion it is, as we see, quite transparent once one ceases to try to reinterpret Hegel in a consistent fashion. I will now argue that this is the form of a dialectical contradiction, to which all others reduce. First, we have met contradictions of the form $(a=a) \& (a \neq a)$. These are obviously of this form. Another main form of contradiction that we have come across in the preceding sections is where a thing is identical with its opposite: $A = \sim A$. Thus, for example, that something, a , is free (Fa) is identical to its being bound (not free): $Fa = \sim Fa$. This, too, is a special form of identity in difference. For, as we noted in section 3, it is always true that $A \neq \sim A$. Thus, identity of opposites is just the identity in difference $(A = \sim A) \& (A \neq \sim A)$. In fact, the identity of opposites $A = \sim A$ is doubly contradictory, since it also gives rise to the contradiction $A \& \sim A$. For either A or $\sim A$; without loss of generality, suppose the former. Then AA is true, by the T-scheme (A is true iff A). But if $A = \sim A$, A is true implies $\sim A$ is true (by the substitutivity of identicals). Hence $\sim A$ is true too. It follows that $\sim A$, again by the T-scheme. Thus, both A and $\sim A$. Some doubt may be cast on this argument by the fact that it uses the law of excluded middle, $A \vee \sim A$, a law of logic that Hegel sometimes shoots at. But first, note that the law is quite valid on the semantics of section 3, as I noted there. Secondly, when Hegel does shoot at the law, it is not because he thinks it fails to be true; in fact it "is so trivial, it is hardly worth the trouble of saying it" (1969, Vol. I, book 2, section 1, eh. 2C, 438). Rather, it is because it may be false (as well)! Two particular cases of the identity of opposites are worth commenting on. First, Hegel often describes identity in difference by saying that something's being identical with itself is its being different from itself. This is just the identity of opposites $(A = A) = (A \neq A)$. Secondly, to return to the dialectics of motion that we discussed in section 4, this, too, can be seen as a case of the identity of opposites. For we may take the instantaneous contradiction produced in a state of motion to be that the body's being in a certain place is its not being in that place, $A = \sim A$. This will imply that it both is and is not in that place, $A \& \sim A$, as I have just

observed. Moreover, because this type of contradiction is identified as a state of change, it is natural to describe any state of the form $A = \sim A$ as a state where A is changing into its opposite $\sim A$, or vice versa. Thus, the identity of opposites is frequently described in this way, as, for example, the opposites going over into each other. We have now seen that all the dialectical contradictions we have met are instances of identity in difference: $(a=b) \& (a \neq b)$. We may therefore take this to be the general form of a dialectical contradiction. This is an excellent way of doing justice to the point we noted in section 4, that the poles of a dialectical contradiction must have a tighter relation than mere extensional conjunction. For the poles of the identity in difference $(a=b) \& (a \neq b)$, a and b , are actually identical with (though different from) each other; (dialectical) identity is therefore the relationship between the poles of a dialectical contradiction.

9 Dialectics and Epistemology

I have discussed the role and form of contradiction in dialectics. There is, of course, much more to dialectics than this. Much of the interest in Hegel's and Marx's dialectics is in their analyses of the nature of concrete contradictory situations. Moreover, the identity in difference of various notions, such as being and nothingness, matter and consciousness, freedom and necessity have many consequences and ramifications. I cannot hope to explore them all here, in what is already a very long paper. But let me, as a taste, explore briefly one example: that of being-in-itself and being-in-consciousness. (This is taken from Sayers, 1985, part 1, where a full and non-formal discussion may be found.) An object, a , may exist in consciousness C_a , or out of consciousness (in itself), $\sim C_a$. Let us write c for C_a , its being in consciousness, and c^* for its being in itself, $\sim C_a$. Suppose that these are related by the identity in difference of opposites: $(c=c^*) \& (c \neq c^*)$. Then various people in the history of philosophy have seen only one side of this contradiction, and have thus landed themselves in awkward philosophical problems. Dualists (such as Locke) argued that the thing in itself and the thing in consciousness are merely distinct $c \neq c^*$. This raises the problem of how knowledge is possible, since there is, ipso facto, no way of turning the object of knowledge, the thing in itself, into the object of consciousness. Non-dialectical monists, on the other hand, argued merely that $c=c^*$. This position comes in two varieties. Traditional idealists (such as Berkeley) denied the autonomous existence of a mind-independent reality, and thus wished to reduce c^* to c . This leads to a variety of insoluble problems concerning the objectivity of knowledge, the problem of other minds, etc. Traditional materialists (such as central state materialists) by contrast, denied the autonomous existence of matter-independent thought, and thus tried to reduce c to c^* . This leads to a variety of problems; for example, those stressed by functionalists, but more crucially, those posed by the phenomenological aspects of thought (which still plague functionalism). The dialectical monist, however, has seen both sides of the contradiction. Like the traditional dualist they assert the distinctness of c and c^* , and thus avoid the problems associated with either of the reductionist programs. Like the traditional monist, however, they assert the identity of c and c^* , thus avoiding the problem of the disjuncture between the two. The contradiction $c=c^*$, indeed, marks the transition of the object in itself into consciousness, and thus of cognition itself. Thus, the dialectical monist sees the recognition of the identity in difference of the thing-within-consciousness and the thing-without-consciousness, $(c=c^*) \& (c \neq c^*)$, as central to an adequate understanding of the nature of cognition. There is an objection here reminiscent of Eulathus' famous reply to Protagoras; namely that since the dialectical monist asserts that $c = \sim c^*$ then they are still stuck with the distinction between c and c^* ; and since they assert that $c=c^*$ they must still have the problem of reducing one to the other. Thus the contradictory position gives rise to the worst of both positions, not the best. Though the reply is a clever

one, it does not work. For it is not the mere fact that $c \neq c^*$ that gives rise to the problem for the dualist, but the fact that there is no way of bridging the gap between the two poles. For the dialectical monist, this bridge is provided by the contradiction, which marks the transition of the object into consciousness. And the mere fact that one accepts that $c = c^*$ does not require one to reduce either to the other. Indeed, given that they are also distinct, there should be no temptation to do this.

10 Conclusion

With this rather brief look at an application of dialectics, which shows very clearly the dialetheic nature of dialectics, I will end. Knowledgeable dialecticians will, in a sense, have learned nothing much from this paper: a rose, by any other name, is a rose; yet a rose, by another name, might be decidedly misleading; I hope, at any rate, that dialecticians will at least have learned from this paper that it is a spade that is called "a spade." [12] The University of Queensland Queensland, Australia [12] I am grateful for comments on an earlier draft of this paper to Richard Campbell, Uwe Petersen and especially Sean Sayers. Part of that draft was read at the second Hegel conference at the University of Newcastle, New South Wales, November 1986.

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