Chapter 2

DIALECTICS AND DIALECTICAL LOGIC

We have already stated that we would follow the dialectical method based on materialist dialectics. In the present case, not only the method but also the topic of study is dialectics. So, it is essential to expound what do we mean by dialectics. We would discuss here the discovery of dialectics and the turning of the idealist dialectics into a materialist one by the founders of dialectical materialism. Here we would not take up in detail the question of the unity of dialectics as methodology as this already formed the essence of the chapter on method. Without going deeper into the textual history of dialectic, we shall try to enter into a polemic of issues involved in dialectics that would pave us the way for tracing the basic element of dialectical logic and the elements of its manifestation so that we can trace them in Kant and Hegel (chapters 3 & 4).
2.1 **Discovery of Dialectics**

The Greek word 'dialektos' means 'discourse' or 'debate'. Ancient philosophers considered it as an art or science of drawing rigorous distinctions or bringing to light contradictions not sensed before. Aristotle gives Zeno of Elea (490-430 BC) the credit of inventing this dialectics.

Zeno's paradoxes bring out the contradictions in motion, plurality, quantity, etc. But his conclusion is that since these have inherent contradictions, they are either appearances and hence unreal or just impossibilities. Arguments of Zeno on the impossibility of motion are called *aporia*. Aporia in ancient Greek philosophy is conceived as a problem difficult to be solved because of some contradiction in the object itself or in the concept of it. Zeno correctly understood the contradictory nature of motion, but not the unity of its contradictory moments. To move is to be in this place and not to be in it at the same time. It is the unity of continuity and discontinuity of space and time that makes motion possible.

Zeno is right in pointing out the contradictory nature of motion. But, he is wrong when he denies the reality of motion because of the contradiction found in motion. Old logic does not allow contradiction. To be contradictory means
inconsistent and hence unreal according to this logic. Even really possible things can be logically impossible in this logic. Motion is a logical inconsistency and thus impossibility. Here, logic is solely subjective and a priori. This problem got solved only when Hegel identified the logic with the reality. He identified the reality with the thought. Earlier, at least thought cannot be contradictory, may whatever be the plight of reality. Hegel argued that contradictions are real, everywhere and everywhen. As thought is the reality for Hegel, contradictions also form part of it. "Identity of opposites" becomes the essence of Hegelian reasoning.

In the beginning dialectics was used equivalent to sophistry. Protagoras (490–410 BC) earned his living by teaching students how to argue from both sides - for something and against it. From this position of contradictory possibilities Protagoras framed his relativism. In 'Antilogic' Protagoras is said to claim that "Man is the measure of all things; of things that are that they are, of the things that are not that they are not." Here, the dialectic gets degenerated into relativism, because, as Lenin rightly points out that in subjectivism and sophistry the absolute is absolutely excluded. In a special note (marked as 'NB') in the tiny pamphlet 'On the Question of Dialectics', Lenin distinguishes between sophistry
and dialectics. He says:

For objective dialectics there is an absolute within the relative. For subjectivism and sophistry the relative is only relative and excludes the absolute.1

Unless this element of absolute is maintained, the same thesis of change and dialectic can turn into vulgar relativism. That is how the dialectic in Heraclitus gets transformed into relativism in Cratylus. Different from the sophists like Protagoras, stands Socrates. Perhaps because dialectics was considered sophistry that Socrates is counted along with the sophists. Socrates' goal was to arrive at "universal definitions". Socratic irony and elenchci are meant to bring out the contradictions and that way discard the inconsistent knowledge and to arrive at clearer concepts. So, his dialectic is more of an inductive nature. Plato took dialectic as the method of cognition with both ascending and descending phases. But, Aristotle kept dialectics along with probable knowledge, i.e., opinion. Because, for Aristotle, only deduction (syllogism) forms the method of apodictic knowledge.

On the whole we can say that ancient philosophers, especially the Greeks, used dialectic. At the same time, because of the ideological priority of the formal law of contradiction, this dialectic could not yield much fruit. Hegel calls this ancient dialectic as 'negative dialectic'. After a negation of negation, this ancient dialectic got a qualitatively new content in modern dialectics as Engels has pointed out. After the denial of dialectic by the medieval scholasticism, it appears again with new vigour and new content in modern philosophy. Hegel considers Spinoza a dialectician with much speculative skill. (Spinoza's dictum that 'all determination is negation' is conversed by Hegel in his positive dialectic.) Then comes Kant with his antinomies. Hegel criticises Kant in his limiting antinomies only to the cosmological ideas. Despite all these dialecticians of past, 'only in Hegel we get the logic that works as the basis of their dialectic. The so far excluded opposites are related by way of a necessary connection in Hegel.

For Hegel, contradiction forms "the principle of all self movement"; it is "the root of all movement and vitality."}

3. Ibid. p. 439.
Hegel holds that: "Intelligent reflection... consists... in grasping and asserting contradiction."\(^4\) "Speculative thinking... holds fast contradiction."\(^5\) Hegel concludes the 'identity of opposites'. In Hegel, being and thought are identical, finite and infinite are identical, the real and the rational are identical. Since the fourth chapter is fully devoted to Hegel's dialectics, we shall not enter into a discussion of it here.

But, our characterization of Hegel's dialectics as idealist would not be wrong as this is an uncontroversial assertion. Hegel himself argues for idealism of an objective type. Idea is prior in Hegel. From idea, everything originates. Idea is itself being. Being is idea only. All others are determinations that come and go during the dialectical movement of this ideal being.

We have already noted, in the chapter on method, that the question of primacy of matter or idea is an important one and a contribution from the side of materialist dialectics in solving the problem of method. The essence of the idealist logic of Hegel was taken up by the dialectical materialists for further enrichment.

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5. Ibid. pp. 440-41.
2.2 Materialist Base Given to Dialectics

Founders of dialectical materialism—Marx and Engels—acknowledged their indebtedness to Hegel for the dialectical method. Same time, they were critical of his method. In the afterword to the second German edition of Capital (1873), Marx says that "(his) dialectic method is not only different from the Hegelian, but is its direct opposite."6 The very question of primacy of matter that we have earlier noted is behind this reasoning of Marx. He rightly explicates this in no unclear terms.

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.7

Here, the basic distinction of materialist dialectics propounded by Marx from the idealist dialectics of Hegel is strikingly clear. This idealist nature of Hegelian dialectics is itself the mystifying side of it. With Hegel, dialectic is standing on its head. It must be "turned rightside up", to use Marx's own terms, in order to get "the rational kernel" of


7. Ibid.
dialectics. Marx rightly thinks that the rational element of Hegel's dialectics can be freed from its "mystical shell".

How Marx relates to and differentiates himself from Hegel is expressed in one of the former's letter to Kugelmann. Referring critically Herr Dühring, Marx says here:

He knows very well that my method of presentation is not Hegelian, since I am a materialist and Hegel is an idealist. Hegel's dialectics is the basic form of all dialectics, but only after it has been stripped of its mystical form, and it is precisely this which distinguishes my method.

Engels also points out the idealist weaknesses of Hegel's method in Karl Marx, A Contribution to the Critique of Political Economy:

...the Hegelian method was absolutely unusable in its existing form. It was essentially idealistic, and here the problem was the development of a world outlook more materialistic than any previous one. Hegel's method took pure thought as its point of departure, and here one ought to have started from the most stubborn facts. A method which, according to its own avowal, "came from nothing through nothing to nothing" was by no means suitable in this form. Nevertheless, it was the only element in all the available logical material which could be used at least as a starting point.

8. Ibid. "With him it is standing on its head. It must be turned rightside up again, if you would discover the rational kernel within the mystical shell." (Ibid.)


At a single stretch, here, Engels points out the demerits of Hegel's method as well as establishes the need to take Hegel as a starting point and to take him onwards with a new content. Engels credits Marx of giving a materialist content to Hegel's dialectic:

Marx was and is the only one who could undertake the work of extracting from the Hegelian logic the kernel containing Hegel's real discoveries in this field, and of establishing the dialectical method, divested of its idealist wrappings, in the simple shape in which it becomes the only correct form of developmental thinking.  

In this section itself, we are forced to analyse a controversy regarding the revolutionary inheritance of Hegelian dialectic by Marx. Thinkers like Louis Althusser view that Marxist dialectics is fundamentally different from Hegel's dialectic, and Marxist dialectic can be grasped only if one rejects all the Hegelian influences. Althusser stressed a discontinuity between Hegel and Marx.  

Althusser is right in asserting a fundamental difference between the two dialectics, because even Marx accepts that his method is not only different but directly opposite to Hegel's. Althusser is equally wrong and undialectical in thinking that the two dialectics are no way connected.

11. Ibid. p. 55.
12. Louis Althusser, For Marx, Verso, London, 1979. See the article titled 'On the Materialist Dialectic'.

In fact, Marx himself can reply to Althusser. In an afterword to Capital, Marx comments about Hegel's dialectics:

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.13

The splitting or separation of form and content in Hegel is done by Marx himself, and not just by Engels as Althusser thinks. Althusser wrongly isolates Engels from Marx and attacks him for characterizing Hegel's system as idealistic and method as revolutionary. And we saw that both Marx and Engels accept this revolutionary method but not uncritically. So, it goes without much argument that theirs was no way a flat acceptance of Hegel's dialectic. The question that remains controversial is whether a separation of form from content would amount to metaphysics. Because to separate two and take them out of context is metaphysical. Here, Marx and Engels does not take Hegel's dialectic out of context; they accept what is acceptable in Hegel to start with. Theirs is neither an outright denial nor an outright acceptance of Hegel which would have been metaphysical. On the other hand, their

treatment of Hegel itself is dialectical; they accept as well as deny the continuity of dialectic.

When Hegel's dialectic became a fashion in Germany, Marx criticised its "mystifying side"; when Hegel was considered a "dead dog", Marx defended him. 14 Because:

In its mystified form, dialectic became the fashion in Germany, because it seemed to transfigure and to glorify the existing state of things. In its rational form it is a scandal and abomination to bourgeoisdom and its doctrinaire professors... 15

Marx defended Hegel and criticised Hegel; he inherited what is living in Hegel, and altered it also. About this Marx recollects:

The mystifying side of Hegelian dialectic I criticised nearly thirty years ago, 16 at a time when it was still the fashion. But just as I was working at the first volume of "Das Kapital", it was the good pleasure of the peevish, arrogant... to treat Hegel as a "dead dog". I therefore openly avowed myself the pupil of that mighty thinker, and even here and there, in the chapter on the theory of value, coquetted with the modes of expression peculiar to him. 17

14. Ibid.
15. Ibid.
16. The reference is about Critique of Hegel's Philosophy of Right (1843). Della Volpe thinks that this book is the exact reference because (1) this manuscript exactly dates 30 years back, and (2) this is more important than the Economic and Philosophical Manuscripts of 1844. See, Galvano della Volpe, Rousseau and Marx, Lawrence & Wishart, London, 1978. pp. 161-2.
17. Karl Marx, op.cit. p. 29.
Let us not go into the details of the critique of idealist dialectics just now, as it is awaited in the last (6th) chapter where we do a critical assessment of the dialectics in Kant and Hegel. On the whole, we can only disagree with the metaphysics projected by thinkers like Althusser in overlooking the aspect of continuity of dialectics from Hegel to that of dialectical materialists.

2.3 Omnipresence of Dialectics

The point that dialectics is everywhere and everywhen is an espousal of Hegel. He is criticised of panlogism for this. His principles of the identity of being and thinking, and the coincidence of logic, epistemology and dialectics (ontology) point at the omnipresence of dialectic. Materialist dialectics also accepts the presence of dialectics in each and every field or discipline and the dialectical unity of all these as well. We have seen this truth of dialectic more in the first chapter on method (see section 1.2).

2.4 Logic of Dialectics

In one word, the logic of dialectics is that of 'contradiction'. Contradiction forms the essence of existence and development, rest and motion, matter and idea. There is nothing
that is not contradictory. This runs counter to the old thinking that there is nothing real that is contradictory. About this, Hegel remarks:

... 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. 18

The old basic law of thought was only identity or non-contradiction. If there is a question of grading these two principles (i.e., dialectical as well as formal) of thought, Hegel says that he would consider the one of contradiction as the "profounder". 19 About contradiction and identity Hegel says:

... it is one of the fundamental prejudices of logic as hitherto understood and of ordinary thinking, that contradiction is not so characteristically essential and immanent a determination as identity; but in fact, if it were a question of grading the two determinations and they had to be kept separate, then contradiction would have to be taken as the profounder determination and more characteristic of essence. For as against contradiction, identity is merely the determination of the simple immediate


19. Ibid.
of dead being; but 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.20

Being dialecticians, neither Hegel nor dialectical materialists deny formal logic outrightly. In the above quotation itself, Hegel does not exclude the determination, identity. In Anti-Duhring, Engels also accepts the coexistence of formal logic and dialectics:

All that remains in an independent state from all earlier philosophy is the science of thought and its laws - formal logic and dialectics.21

Lenin also acknowledges this in the section on dialectics in Karl Marx (1914) which he wrote for an encyclopaedia.22 The relation between these two types of logic we will deal later (2.8). So also, the concept of contradiction itself is very complex. At present we shall devote ourselves to know more about the various features and the essence of dialectics so that we can grasp the law of contradiction in all its gravity.

20. Ibid.


We saw already that the dialectical method is contrary to metaphysics. 23 See how Lenin details the features of dialectics in Karl Marx:

A development that repeats as it were, stages that have already been passed, but repeats them in a different way, on a higher basis ("negation of negation"), a development, so to speak, that proceeds in spirals, not in a straight line; a development by leaps, catastrophes, and revolutions; "breaks in continuity"; the transformation of quantity into quality; inner impulses towards development, imparted by the contradiction and conflict of various forces and tendencies acting on a given body, or within a given phenomenon, or within a given society; the interdependence and the closest and indissoluble connection between all aspects of any phenomenon (history constantly revealing ever new aspects), a connection that provides a uniform, and universal process of motion, one that follows definite laws — these are some of the features of dialectics as a doctrine of development that is richer than the conventional one. 24

Though, so complex is dialectics as Lenin portrays, it has also, as he himself stresses, "a uniform, and universal process of motion, one that follows definite laws." 25 Our effort

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23. See more about this distinction in Joseph Stalin, Dialectical and Historical Materialism, New Book Centre, Calcutta, 1976.


25. Ibid. p. 8.
Should be to reach to what those essential principles are. We have already said that the essential principle behind dialectics is that of contradiction.

2.5 Dialectical Law of Contradiction

Engels holds that there are three laws of dialectics. In fact, all these three laws belong to basically a single law, a point which we are going to explicate here. It is true that all these three aspects are referred and accepted by Marx, Engels and Lenin, though it is only Engels who formulated these into three laws. Generally, all the Soviet textbooks on Marxist dialectics, without exception, follow the formulations of Engels in this regard.26

In Dialectics of Nature, a collection of fragments and articles, Engels says that "the laws of dialectics... can be reduced in the main to three:

The law of the transformation of quantity into quality and vice versa;

The law of the interpenetration of opposites;

The law of the negation of the negation."27 Engels continues: "All three are developed by Hegel in his idealist fashion... "28 This claim of Engels on the question of the number of laws is factually incorrect. Because Hegel formulates large number of aspects in his dialectic in Science of Logic. Sublation, mediation, negation, negation of negation, self-relation, self-negation and so on are all concepts of movement seen in Hegel. These together form an interconnected whole constituting various modes of expression of contradiction that lies behind the self-movement of anything or all. Hegel does not positively state these three laws as Engels claims. If one follows the way that Engels formulated these laws, it can be also said that there is a "law of the transformation of being into nothing and vice versa." That way, the innumerable categories which the dialectic covers in Hegel can all be used for formulating different laws. But that is not the way. Hegel only says that 'contradiction' is the essential determination of the new principle of thought. At present, let us see from Engels himself, where he is giving the stress.

28. Ibid.
In the 'Outline of the General Plan' of his *Dialectics of Nature*, Engels characterises his third law of dialectics, i.e., the law of the negation of negation as "development through contradiction" and as "spiral form of development." 29 Again, in the article "Dialectics" of the same book, he considers this same law as "the fundamental law for the construction of the whole system" in Hegel. 30 From these Engels' own assertions, we can read that, in his view, negation of negation is the fundamental law and this is a law based on contradiction. We follow the opinion that the first two laws also are explicitly based on contradiction. The first law, i.e., the law of the transformation of quantity into quality and vice versa is an example of contradiction. The second law, i.e., the law of the interpenetration of opposites, forms the exact content of a contradiction. In fact, this second law of Engels is the basic law of dialectics accepted by Lenin which we shall see a little after. However, to Engels, the third law, i.e., the law of negation of negation is the fundamental law that can explain development. This we will refute in the coming section. But one

29. Ibid. p. 17.
30. Ibid. p. 62.
thing clear from the discussion is that Engels also took contradiction as the basis of this law, as he stated in the 'plan outlines'.

Then, what is the basic law of dialectics? To put the question more dialectically, what is the basic law of dialectics so far discovered? The law of contradiction (Hegel) or the law of the interpenetration of opposites (Engels) or the law of unity and struggle of opposites or unity of opposites (Lenin) is the answer. These different namings point at essentially the same.

The points raised by Engels in the name of laws or even more than those are accepted and used or pointed out by others like Lenin. It is not that we are fully denying Engels' points; but they all are not accorded the status of law. Marx accepts the points formulated by Engels. But, since he has not left us any book on logic except his applications of this on various works like Capital, Marx is not seen

31. Ibid. p. 17.

32. Lenin says about this: "If Marx did not leave behind him a 'Logic' (with a capital letter), he did leave the logic of Capital, and this ought to be utilised to the full in this question. In Capital, Marx applied to a single science logic, dialectics, and the theory of knowledge of materialism (three words are not needed: it is one and the same thing) which has taken everything valuable in Hegel and developed it further." V.I. Lenin, Collected Works, Vol. 38, Progress Publishers, Moscow, 1981. p. 317.
subjecting Engels' formulations for analysis. On dialectical logic, Lenin could leave behind some notes and occasional remarks. In the notes left by Lenin on Hegel's *Science of Logic*, he presents three elements in short and sixteen elements in detail of dialectics. 33 After presenting what he calls "the

33. Ibid. pp. 220-22. 1) The determination of the concept out of itself (the thing itself must be considered in its relations and in its development); 2) the contradictory nature of the thing itself (the other of itself); the contradictory forces and tendencies in each phenomenon; 3) the union of analysis and synthesis. Such, apparently, are the elements of dialectics.

One could perhaps present these elements in greater detail as follows: 1) the objectivity of consideration (not examples, not divergences, but the Thing-in-itself); 2) the entire totality of the manifold relations of this thing of others; 3) the development of this thing (phenomenon, respectively), its own movement, its own life; 4) the internally contradictory tendencies (and sides) in this thing; 5) the thing (phenomenon, etc.) as the sum and unity of opposites 6) the struggle, respectively unfolding, of these opposites, contradictory strivings, etc.; 7) the union of analysis and synthesis - the break-down of the separate parts and the totality, the summation of these parts; 8) the relations of each thing (phenomenon etc.) are not only manifold, but general, universal. Each thing (phenomenon, process, etc.) is connected with every other. 9) not only the unity of opposites, but the transitions of every determination, quality, feature, side, property into every other (into its opposite?); 10) the endless process of the discovery of new sides, relations, etc. 11) the endless process of the deepening of man's knowledge of the thing, of phenomenon, processes, etc., from appearance to essence and from less profound to more profound
In brief, dialectics can be defined as the doctrine of the unity of opposites. This embodies the essence of dialectics, but it requires explanations and development.35

Here, Lenin argues that the unity of opposites forms the essence of dialectics. In a different way, the same is expressed in 'On the Question of Dialectics' in Philosophical Notebooks:

The splitting of a single whole and the cognition of its contradictory parts... is the essence... of dialectics.36

In the sixteen elements of dialectics presented by Lenin, negation of negation fares as the 14th element. Lenin notes it as


34. Ibid. p.220.
35. Ibid. p.222.
36. Ibid. p.357.
"the apparent return to the old." But "the transition of quantity into quality and vice versa", put as the 16th element, is taken as an example of the "unity of opposites", the 9th element in the list. From this it is clear that Lenin does not discount the element of negation of negation. But the unity of opposites is taken as the essence of dialectics. "Dialectics in the proper sense", says Lenin, "is the study of contradiction in the very essence of objects".

Such a monist view that takes a single principle (here, contradiction) as the essence of dialectics is not abstract because it entails the diversity of the principle also. At the same time, this explains also the untenability of the pluralist views on dialectics by writers like Richard Norman. Norman divides the dialectics in Hegel into a conceptual one and a temporal-empirical one, and altogether presents a metaphysical approach in reading Hegel.

37. Ibid. pp. 222.
38. Ibid. pp. 221-2.
So far, our effort in this section was to establish that the basic law of dialectics is the law of contradiction or the unity of opposites. Now we will explain its nature.

The law of contradiction sees everything, every phenomenon in the unity of their mutually exclusive opposites within itself. One develops into the other. Being becomes nothing. This has a process and content. One self-relates and self-negates into the other. Quantity becomes quality and vice versa. Form and content also interchange. All the categories recognised by Aristotle, Kant, Hegel, Marxists and others develop, develop into even their opposites. One negates itself and affirms into the other. Of the opposites, one is negated in itself, because its opposite develop with in itself. In this change, the first gets negated while the second, i.e., its opposite gets affirmed. The whole transformation itself is a negation for one while an affirmation for its opposite. Here, the negation is itself affirmation, and affirmation itself is negation, but in relation to the other. So, here we get a case of unity or contradiction between affirmation and negation. Affirmation itself is the unity of affirmation and negation. So also the negation. We have to grasp them in their life, in their ability to turn into the other or the opposite. Formal logic conceives them in their dead static condition. We have
to see them in their dialectic.

Then there is negation of negation which itself is an affirmation. Thesis gets negated in anti-thesis (i.e., antithesis gets affirmed in itself; i.e., the thesis gets negated in itself to become the antithesis). Through a similar process, antithesis is negated in synthesis which is after all another thesis only (i.e., synthesis or the new thesis gets affirmed in itself; i.e., the antithesis gets negated in itself to become the synthesis/new thesis). So, we get a chain of affirmation, negation, affirmation where the negation of negation is an affirmation only.

The development by the way of contradiction or the unity and struggle of opposites, is not so simple and linear. Even after taking the risk of picturisation, we cannot say that the development is a simple spiral. It is so complex that a single concrete category itself reflects the immensity of dialectic and this in turn can be represented by a single monist law, i.e., the law of unity of opposites.

In a single category or proposition, the whole and the whole history can be viewed. Lenin defends this:

... in any proposition we can (and must) disclose as in a "nucleus" ("cell") the germs of all the elements of dialectics. 41

41. V.I.Lenin, op.cit. pp. 359-60.
Lenin says that this is the method followed by Marx in *Capital*. As for Marx, bourgeois society is only a particular case of dialectics, the same method must be the method of exposition of dialectics in general. By starting from a simple commodity relation, he revealed "the germs of all the contradictions" of modern society. Lenin narrates the implicit or explicit existence of other categories in a single thing:

Every individual is (in one way or another) a universal. Every individual is (a fragment, or an aspect, or the essence of) an individual. Every individual only approximately embraces all the individual objects. Every individual enters incompletely into the universal, etc etc. Every individual is connected by thousands of transitions with other kinds of individuals (things, phenomena, processes), etc. Here already we have the elements, the germs of the concept of necessity, of objective connection in nature, etc. Here already we have the contingent and necessary, the phenomenon and the essence; for when we say: John is a man, Fido is a dog, this is a leaf of a tree, etc. we disregard a number of attributes as contingent; we separate the essence from the appearance, and counterpose the one to the other.

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42. Ibid. pp. 358-9.
43. Ibid. p. 359.
44. Ibid.
45. Ibid.
In fact, it is right to say that all are instances of various contradictions. There are contradictions within the subject; there are contradictions in the object; contradictions are there between subject and object. That means dialectics is everywhere. In an instance of cognition, in theory of knowledge, in knowledge and in the history of theory of knowledge, there is dialectics; history, the whole history and every period of history develops through dialectics; a single category or the whole logic is dialectical; a thing, a phenomena, the whole reality and the ontology as a whole exhibit contradictions. Father and son, above and below are also contradictions.46 There is a dialectic in war and peace, between proletariat and bourgeoisie. There is practice-theory dialectic, so on and so forth. So much about contradictions and dialectic.

When we say that unity of opposites is the basic law of dialectics, we imply that struggle is also involved. Being opposites, struggle is, in fact, taken for granted. It is the unity that is unthinkable between opposites in common sense. But, dialectics accept this aspect. So, this law of contradiction has both unity and struggle of opposites. Of them,

46. Hegel cites these examples in Science of Logic.
unity is "continual, temporary, transitory, relative",⁴⁷ as is held by Lenin. He rightly states that struggle is "absolute, just as development and motion are absolute".⁴⁸ Regarding identity or unity of opposites, Stalin's understanding is not very dialectical. Of the four features of dialectics pointed out by Stalin, he talks about "struggle" of opposites as the fourth feature; he does not talk about unity of opposites.⁴⁹ This is because Stalin fails to see the connection between these two aspects of relation between opposites. In fact he swings between these two aspects without seeing its connection. Stalin's approach is wrong. As Lenin points out, there is identity also. The only difference is that identity is relative in 'struggle'. On the whole, the lack of real grasp of the 'identity' and the 'struggle' aspects of the connection between opposites in a contradiction leads to metaphysical one-sided projection of one of these aspects.

Let us enter into another related issue. We are using the terms 'identity' and 'unity' synonymously. Hegel employed mostly identity, though the other term is also used. Lenin uses

⁴⁷. V.I. Lenin, op.cit. p. 358.
⁴⁸. Ibid.
them as more or less identical, even while he accepts their difference. Lenin says that

it would be more correct, perhaps, to say their "unity", although the difference between the terms identity and unity is not particularly important here. In a certain sense both are correct.50

Lenin does not deal on the difference. But it is clear from Lenin's suggestion of developing a methodology of unity of sciences, that the term 'unity' connotes an element of 'plan' or a 'conscious' step. Identity is unity; unity can be a bit more than identity at occasions. For all practical purposes, they are same.

Maurice Godelier, the French sociologist, after a study of dialectics in *Capital*, tries to differentiate and then counterpose these two terms.51 For him only unity of opposites belongs to "the realm of scientific thought."52 He upholds this by pointing out that there are two kinds of contradictions - one is "internal to a structure", the other is "between two structures",53 and two methods - dialectical and

50. V.I.Lenin, op.cit. p. 357.
52. Ibid.
53. Ibid. pp. 77-82.
hypothesico-deductive methods in Marx's *Capital*. Actually, Godelier fails to understand that Marx depicts the development of the same contradiction in its various stages. Marx's criticism of the abstract identity being flaunted by the simpler Hegelians who even assume that production and consumption are identical is taken out of context by Godelier. Godelier, in our view, sees things rather in their division than in their unity and thus lands in metaphysics.

Another issue in the materialist law of contradiction is the presence of many contradictions at a time. When Hegel presented this law in his idealist fashion, though it involved a large number of categories in its dialectical movement, he presented the whole dialectic as if it is a single spiral. In Hegel, the Absolute or the Idea or God or the real undergoes dialectic. In materialist dialectics, the ideal or an abstract universal itself is the result of the dialectic of various other contradictions. So, the question of many set of opposites comes up. To limit these into a minimum number of categories would be wrong. In fact, they are innumerable. Cause-effect, appearance-reality, essence-existence, etc. are only few examples of them.

So also we find that in the development of a particular phenomenon, there are universal principles of contradiction. And of the contradictions in the particular phenomenon, there would be few contradictions which are more dominant and basic. For instance, the basic contradiction of capitalism remains that between proletariat and bourgeoisie throughout the capitalist era. This same basic contradiction can express itself as another principal contradiction, for instance, that between oppressed nations and imperialism. So contradictions themselves change. The essence of a phenomenon is reflected in its principal contradiction; so principal contradiction once grasped means we understood the essence of that phenomenon. Every contradiction has a principal aspect and a secondary aspect. Of these two aspects, again the principal aspect can represent the essence of the phenomenon.

This interaction of various contradictions are explained by a concept of 'overdetermination' by Althusser. For him, any situation is irreducibly complex; a multiplicity of factors or causation is behind it. Althusser's fight against reductionism and mechanism ends up in the pluralist treatment of various factors at the same level with equal importance, a mistake

which Lukacs self-critically examines as late as 1967.56

We have so far dealt in detail the dialectical law of contradiction. By way of a sum up we can say that this is essentially the basic law of dialectic. And so we have to deal with the status of other laws of dialectics formulated by Engels.

2.6 Status of the Other Laws of Dialectic

If we trace back the reason behind Engels' formulating the laws as three in number, we will stop only in Aristotle who also formulated three laws of formal logic. We can see an Aristotelian hangover in Engels in this regard.

All laws of Engels are an attempt to counter the Aristotelian laws. In this attempt, Engels follows Aristotle at least in number though the content of the laws runs counter to that of Aristotle's. Through the three laws of dialectics, Engels refutes Aristotle.

Take, for instance, the law of identity in Aristotle. Engels counter this through his law of negation of the negation. To

Aristotle A is A; not A is not A; no identity is there between A and not A. For Engels, A becomes not A and then again A, but this time higher than the previous A, and this new A is negation of negation of the first A. Thus, with a new content, law of identity is transformed into the law of negation of negation.

The law of contradiction in Aristotle which means only that of non-contradiction is replaced with the dialectical law of contradiction, i.e., the law of interpenetration of opposites.

The principle of excluded middle is also reversed by Engels. In Aristotle, S is either P or Q; A is either A or not A; there cannot be anything in between. The law of the transformation of quantity into quality replaces this law. When quantity develops and accumulates itself, a qualitative leap takes place. But this qualitative leap is not formal. This takes place because of the quantitative changes within it. It passes through a large number of middles before a leap. There can be a lot in between A and not A. Knowingly or unknowingly, this is how Engels formulates the three laws of dialectics.

If our reasoning is correct, then all these three laws are basically one, i.e., the law of contradiction or unity of opposites because this single law itself can explain the other laws. Hegel himself have concluded that all the three Aristotelian laws are basically one, i.e., the law of identity.
(This is the law of formal contradiction which is essentially non-contradiction of identity; more of this in chapter 4).

We have already stated that Engels' formulations are used by other dialectical materialists also. The main controversy lies in according the status of law to the two laws other than the law of interpenetration of opposites (i.e., the first and third). The transformation of quantity into quality is only an example of the basic of law of dialectics, i.e., the law of unity of opposites. Regarding the third law, i.e., the law of negation of negation, the controversy is more serious and deeper, and let us see it in a bit detail.

Negation of negation is an example of two steps of contradiction combined or it is an example of a triad, or the third stage of the triad. To assert that a triad or its third stage is the law of dialectics is to fall a victim to the "relic of Hegelianism", if we use Lenin's words in his polemic against Mikhailovsky, the narodist. 57

One can point out a number of examples of negation of negation in society and elsewhere. Marx himself uses this terminology. In the chapter on 'Historical tendency of capitalist

accumulation' in Capital, Marx talks of individual private property getting negated in capitalist private property which again gets negated in common socialised property. Marx calls it "the negation of negation", \(^58\) and this is correct. But to make this into a "ritual formula" is not favoured by Marx. While criticising the abstractness and metaphysics in Proudhon, Marx says disparagingly:

For those who don't know the Hegelian language, we shall give the ritual formula: affirmation, negation, and negation of the negation.\(^59\)

Any kind of hackneyed use of Hegelian formula, without real concrete analysis, Marx calls, is "Hegelian trash".\(^60\) Similar things, he ridicules also as "wooden trichotomies" that Lenin accepts verbatim.\(^61\)


\(^{60}\) Ibid. p. 168.

Lenin interprets that even Engels' stress was not on the Hegelian scheme, but on depicting "the actual historical process." In his polemics against Trotsky and Bukharin on the question of trade unions, Lenin stresses the need of concrete analysis. He wants Bukharin to present the whole question "at the present time and in these circumstances" as the dialectical logic unconditionally demands. In this article itself, referring to Plekhanov, he says:

... dialectical logic holds that "truth is always concrete, never abstract."  

Instead of depicting the thing in a concrete manner, indulging in the concoction of triads of everything would be not to see the essence of the thing. Lenin points out that the triad is connected only with the origin of dialectics and nothing more. Lenin clearly explains this:

Replying to Duhring who had attacked Marx's dialectics, Engels says that Marx never dreamed of "proving" anything by means of Hegelian triads, that Marx only studied and investigated the real process, and that the sole criterion of theory recognized by him was its conformity to reality. If,

64. Ibid. p. 444.
however, it sometimes happened that the development of some particular social phenomena filled in with the Hegelian scheme, namely, thesis-negation-negation of the negation, there is nothing surprising about that, for it is no rare thing in nature at all. And Engels proceeds to cite examples from natural history... and the social sphere... It is clear to everybody that the main weight of Engels' argument is that materialists must correctly and accurately depict the actual historical process and that insistence on dialectics, the selection of examples to demonstrate the correctness of the triad, is nothing but the relic of Hegelianism out of which scientific socialism has grown, a relic of its manner of expression. And, indeed, once it has been categorically declared that to "prove" anything by triads is absurd, and that nobody even thought of doing so, what significance can attach to examples of "dialectical" processes? Is it not obvious that this merely points to the origin of the doctrine and nothing more? 65

Then, again, to take negation of negation as a law of dialectics is, one has to say, because of the Hegelian hangover left in Engels. But, as Lenin pointed out, Engels followed first the concrete analysis and only then the form of negation of negation was revealed as being exhibited in the topic of analysis. However, according it a status of law is not correct. In giving it a status of law, we can see certain element of metaphysics in Engels also.

First, even though there is negation of negation, this is not an universal process. Negation is there. But resurrection of certain elements of the original into the result of the second

65. V.I. Lenin, Collected Works, Vol. i. p. 163-64.
negation, i.e., negation of negation, need not be true always.

If feudalism is negated in capitalism and capitalism in turn negated in socialism, what is the element of feudalism in socialism? Secondly, an element of predetermination enters into the second act of negation. See how rightly one author is pointing this out:

In short, when Engels insists that "I must therefore set up the first negation in such a way that the second remains or becomes possible... (a)ccording to the particular nature of each individual case", he has included an element of metaphysics in this explanation of dialectics. He goes on to say that "If I grind a grain of barley, if I crush an insect, it is true that I have carried out the first act, but have made the second act impossible." The second act, as if there is one required, necessary, "charac-

teristic", proper, predetermined "second act". Here we can see how the concept of the "negation of the negation" comes into antagonism with the actual fundamental law of materialist dialectics, the unity of opposites (contradiction).66

Despite the elements of metaphysics in the formulation of the laws of dialectics, it should be clearly said that, overall, Engels promoted dialectics, because, as Lenin points out, the main weight of argument in Engels lies in concretely depicting the process or phenomenon.

66. Bob Avakian, 'More on the Question of Dialectics', in Revolutionary Worker, No. 95, 6 March 1981.
In the section 2.5 itself we have noted that negation of negation is an affirmation only. It is a synthesis only. A synthesis is a new thesis only. From the usage of the triad by Marx and Lenin as affirmative-negation-negation of negation, it is clear that the process is affirmation-negation-affirmation.

2.7 The Question of New Laws in Dialectics

We saw that depicting anything in its actuality, or 'concrete analysis of concrete conditions' is the essence of dialectics. Its basic law is that of unity of opposites or that of contradiction. The laws working in the realm of thought, nature, society and history are all part of the basic law of dialectics. Then formal logic also can be part of the dialectical logic. In a broad sense, this is true. We will see this in the next section (2.8). In day to day life involving measures like numbers, etc., formal logic is applicable. In fact, mathematics and general physics accepts formal logic; though in a long term and broad sense, even this is dialectical. That means, overall hegemony of dialectic works everywhere, and the basic law of dialectic so far excavated is law of contradiction. Can we say that the dialectic itself or our grasping of it stop with this basic law. Such a
conclusion would be undialectical. Because the motion is eternal, and the tool to grasp it or the essence of the motion itself has no other choice but to develop. So possibilities of new laws that may engulf the existing laws at each 'stage' of the dialectic exist. To be complacent with the present law of dialectic is in a way to commit the same Hegelian mistake of ending dialectic with his own philosophy. Similarly various aspects of the existing law of dialectics (contradiction) itself can be further explored. Human knowledge is on its onward journey to further and further revelations of the reality. Let us not close the possibilities of still further laws in dialectics and let us not that way indulge in metaphysics.

We have to say that the demystification that Marx did of Hegel’s dialectic is still incomplete. In fact this demystification of dialectic and the positive grasp of it by human knowledge is an unfinished and unfinishable task that goes as infinite as space and time are. We and our understanding of dialectic form just tiny portions of the all embracing dialectic itself.
2.8 Dialectical Answer to Formal Logic

With the emergence of dialectical logic, the way formal logic has to be seen itself has become a subject of debate. This is natural because the laws of the science of thought that dominated so far the whole history of thought were proved to be insufficient by the dialectical law of logic. The discovery of dialectic is an enrichment to the science of thought, i.e., the logic. The question is how this enrichment affects the traditional logic.

People like Joseph Dietzgen placed dialectical logic over and against the Aristotelian logic. He counterposed dialectic to formal logic.67 To think that formal logic can in no way go along with dialectical logic is itself metaphysical; no aspects of unity between the two logics is accepted here; this is undialectical. The relative difference between the two is absolutised in treating the two as entirely different. Engels and Lenin rightly treated them together.68

At the same time keeping them as separate entities without any relation is also dualistic and metaphysical.

67. Pradip Bagchi did a study on Marx's logic, especially on Marx's Mathematical Manuscripts. His conclusions formulated in a letter to Prof. Orudzhev, Dept. of Philosophy, Moscow University is available. Translation of its excerpts available in Malayalam is what we are here depending on. (Samskarika Masika, October, 1985).

68. See Engels, Ludwig Feuerbach and the End of Classical German Philosophy; and Lenin, Karl Marx.
In our view, dialectical logic comprehends the formal logic. And formal logic can be seen dialectically. Plekhanov explains the relation between formal logic and dialectics better. While formal logic is the logicisation of static moment, dialectical logic is that of a changing, dynamic moment or that of movement between two moments where the static moment is part of the motion. In the foreword to the second Russian edition of *Ludwig Feuerbach and the End of Classical German Philosophy*, Plekhanov writes:

Just as rest is a particular event within motion, so thinking according to the rules of formal logic... constitutes a particular event in dialectical thinking.69

He rightly points out that formal logic is just part of dialectical logic. Then, Plekhanov continues: "within certain limits the basic laws of formal logic apply also to motion."70 This is also true. The important thing is that dialectics does not absolutise formal logic. Plekhanov:

... dialectics does not abrogate formal logic but merely deprives its laws of the absolute significance ascribed to them by the metaphysicians.71


70. Ibid. p. 95.

71. Ibid.
Trotsky's comparison of the relation of the dialectic to formal logic with that of the motion picture to photograph is also revealing enough.\(^7^2\)

Our view implies that dialectical logic is the most real and complete law of thought while formal logic is just partial and incomplete. But in the history of thought formal logic comes first and dialectical logic gets appended to it while the reality should have been otherwise. This issue is raised by one Indian thinker, Pradip Bagchi.\(^7^3\) Bagchi thinks that the present position where dialectical logic is being treated secondary to formal logic should be exactly turned upside down, and dialectical logic be placed in its right position. To the question why the other way happened and such a situation persists, Bagchi finds answer in "the hegemony of ideology at the theoretical level",\(^7^4\) that is, the fake consciousness that human knowledge has been bearing so far - fake consciousness or ideology of formal logic. However, this question of undoing the ideology of formal logic, is a question


\(^{73}\) Ibid.

\(^{74}\) Pradip Bagchi, op.cit.
that has to be left to history. It is a task of future epistemology, an epistemology yet to be armed by future history. Overall, we can say, dialectic comprehends formal logic.

2.9 Developments within Formal Logic

We saw that even formal logic is comprehended in dialectical logic. Apart from the discovery and development of dialectical logic, the new developments within formal logic are also hinting at the tenability of dialectical logic. Discoveries of non-Euclidean geometry and relativity gave enough blows to the foundations of formal logic. More embarrassing was Godel's theorem to formal logic. We shall take up here only this last example and that too in brief.75

Godel's theorem is part of the generalisation published in Vienna in 1931 by Kurt Godel, though an abstract of this was already communicated to Vienna Academy in 1930 itself. Godel's theorem means: There exists an undecidable formula, that itself and its negation are not provable, in any formal system adequate for number theory. That is, the consistency of

a formal system adequate for number theory cannot be proved within the system.76

In essence, the so-called consistent systems are proved to be not self-consistent. In a so-called system of non-contradiction, there is an inherent contradiction. Godel's results shattered the Aristotelian ideal of a perfect deduction from axiomatic first principles. The concept of formal system introduced by Gottlob Frege in 1879 remained until then the foundation of mathematics that follows formal logic. Even though Russell discovered a contradiction in Frege's logic as early as in 1901, owing to his own anti-dialectical ideological conviction, Russell introduced a pluralist theory of 'types' and saved Frege's formal logic in mathematics. With Godel's theorem it became clear that non-contradiction and consistency is rather a question of formalisation than a thing of reality. So, contradictions are real. The contradiction that the mathematicians are facing forms the real contradictions which we saw in dialectics.

76. Ibid. pp. 348-49.
2.10 Metaphysics in the Name of Dialectics

When the developments within the formal logic are pointing towards the truth of dialectical logic, conversely, another trend of metaphysics based on formal logic has developed within certain schools of thinkers that tread on the name of dialectics. This trend either limits dialectic to society or only to thought; they deny dialectics in nature. Some accept dialectical materialism. Some deny it and accept only historical materialism. And for that reason, some want to dehyphenate Marx from Engels because to them Marx is only a historical materialist and Engels is the first revisionist to distort Marxism. Norman Levine is one of the latest writers of this trend. In his heavily documented book, Dialogue within the Dialectics, he declares his aim as "dehyphenating Marx from Engels" and "to contrast the dialectical materialism of Engels to historical materialism of Marx" because he thinks that "dialectic of action" in Marx is different from the "dialectic of nature" in Engels.77 Levine brands Engels as "the first revisionist"78 who turned a philosophy of action into a metaphysical monism.

78. Ibid.
Of the large number of "western Marxists" who accept only historical materialism, Anton Pannekoek (Lenin as Philosopher, 1938), Karl Korseh (Marxism and Philosophy, 1923) and the early Lukacs (History and Class Consciousness, 1923) are few. Sartre also, though from a different tradition, negates dialectical materialism. Sartre takes a very anthropomorphic position by calling dialectic of nature "dialectic as exteriority" because to him this lies outside man "in an a priori law, in an extra-human nature". Considering human history as part of natural history becomes a distortion to Sartre. There are many, outside the Marxist circles, who deny even historical materialism by saying that society does not develop through dialectical contradictions, and the social conflicts cannot be called contradictions.

Without going into the vastness of these shades, we shall just point out in brief the basic fallacy in the method of these thinkers.

79. Apart from Levine's account, Perry Anderson's is also very informative. See Perry Anderson, Considerations on Western Marxism, Verso, London, 1979.


81. Ibid. p. 27.
Historical materialism is the materialist dialectics applied in history. We have already seen that materialist dialectics is everywhere including nature. Those who accept only historical materialism limit not only dialectics but history also to a certain area. If human history does not have a prehistory, knowingly or unknowingly these thinkers have to take asylum in theories of creation and preordained systems presided by external gods. Actually human history is a continuation and part and parcel of natural history. Even after dividing these two histories, to think that nature has a history shows that nature develops. Develops how? Dialectically.

As history is dialectical, dialectics itself has a history. Historical materialism itself is dialectical materialism, and dialectical materialism has its own history, a history not only after it is grasped but before it is discovered also. To think that it was not there before it is discovered is to follow Berkeleyian solipsism of "to exist is to be perceived". This separation of human history from its background, from the background of natural history is to take things out of context, is to see things in their metaphysical separation; this is to present pure metaphysics instead of dialectics. It is to externalise the natural history from human history; a mistake that Sartre commits but accuses others of doing it. This metaphysics is similar to the metaphysical division
between epistemology and ontology that we encountered in the chapter on method.

As these thinkers separate off society and nature, some of them separate off subject and object. For them dialectics is an activity of the mind, of the subject; dialectic is a human and social action only. They don't see that this is the reflection of something. They see only a conscious dialectics, and don't want to see any dialectics in the unconscious or the matter. They accept dialectics only from above, not from below, not as a reflection of anything. The objective dialectics, to them, come up only if subjective dialectics is linked to it. Of course this is not a straight denial of objectivity of dialectics; it is denied only if the mind is not actively connected with it. Is it not subjectivism and solipsism? It is simply so.

Actually, objective dialectics comprehends dialectics in all realms. This is not a metaphysical monism, as Levine would say, that swallows everything. This is not abstract that contains no distinctions at all; it is concrete that sees their difference as well as unity, that sees everything as interconnected according to certain dialectical norms.

The metaphysics we could see in these thinkers is basically a trend of formal logic that dialectics has to repair.
Before ending this section, we should note the fact that an element of metaphysics crops up in the attempts of formalization and picturisation of dialectical logic. To a certain extent that is unavoidable because the very clarity of a process comes up through a positive picture or form of it. But to end up in a formal picture of anything and, for that matter, of dialectics is not correct because dialectics is not something dead, and one should be cautious that the element of formal logic dialectically comprehended by dialectical logic can raise its head at any time. To think of the impossibility of a relapse of dialectics into formal logic is very undialectical.

2.11 Logical Status of Contradiction

We have to come to the point beyond doubt that contradiction is everywhere and contradiction forms the essence of dialectics and dialectical logic. This contradiction is given logical status. Even those accepting contradiction in things, if they follow formal logic, does not accept them in logic. For them this is a logical mistake. They consider contradiction in logic as self-contradiction, and hence nonsensical and unscientific. They declare: Science cannot accept contradiction; science can explain a contradiction. But, our effort was to show that it is more scientific to accept the existence of contradictions,
irrespective of their fields - be it in ontology or be it in logic. 'Alright, there is contradiction', the metaphysicians and formal logicians assert, 'but not in thought and theory'. The problem of these thinkers lies in the fact that they do not think that their theory and thought should represent the facts of existence. They separate thought from existence. If their thought does not represent the reality, the reality of contradictions, then how can their thought be scientific? It is they who talk the unscientific and the nonsensical. What right do they have to metaphysically separate thought from reality and present a thought of non-contradiction while they accept contradiction in reality? This is subjectivism and dualism. This is the old thinking that after all logic is pure and subjective. Old thinking was that logic is only subjective and formal, an activity of pure thinking which is fully autonomous. Formalization went to the extent of rounding up concepts; concepts are cut to size to the extent of losing its parts; and the formal concepts remained partial incomplete truths that lost its ability of interlinkage. To use Hegel's language, the

'penumbral' of the concepts are cut off, and thus they lost their ability to 'shade' into other concepts. This conception of logic and reason as subjective and formal remained unchallenged until Hegel. To be specific, logic remained so until the Critique of Pure Reason. Doubts have cropped with 'dialectic' of this Critique of Kant.

The objectivisation of reason in Kant, which is illegitimate for him, became objective logic in Hegel, be whatsoever idealistic it is.

So, subjectivisation and formalisation was the problem of old logic, and the concepts formulated by formal logic remained only partial truths. The interlinkages which are cut off in formal concepts are retained in dialectical concepts. So, dialectical concepts are more than formal concepts. As dialectical logic comprehends the formal logic, it sees things not as formal things but as complete in their interrelation to the other, i.e., in their contradiction. Since dialectical logic is objective and lively with content, in contrast to the subjective and formal nature of formal logic, the objective contradictions in reality are reluctantly logicised, a job that formal logic cannot do. The identity of thought and existence (reality) that dialectical logic asserts should not be confused with any thinking that these do not have separate realms of existence. This should not be confused to the extent of thinking that
ontology and logic are one and the same; but laws working in both realms are one and the same, i.e., the law of dialectics; dialectical logic represents dialectical ontology through dialectical epistemology.

It would be a pertinent question to discuss why, even after the emergence of dialectical logic, there is much reluctance to give contradiction a logical status. Formal logic deals with constants, while dialectical logic treats these constants as well as their change, change even to the extent of becoming an opposite constant. As Bogomolov, the Soviet dialectician puts it,

Since the constant is an extreme case of change (zero change), formal logic becomes an extreme case of dialectical logic.83

Or again, as he puts, "formal logic also becomes a particular case of dialectical logic"84 because dialectics comprehends all the sciences, all human knowledge. So, as Bogomolov argues, dialectics becomes an indirect science compared to the particular direct cases of science. And the particularities are absolutised in the formal logic, though, we should, as dialecticians


84. Ibid.
view them in their relationalness.

A more or less similar argument is given by Orudzhev:

Dialectical logic, as distinct from formal logic, examines not the immediate connections and relationships between statements, but those mediated by 'intermediate links',... 85

So, the immediate constancy which is not a constancy for another mediation is the subject of formal logic, while that is just a single moment in dialectical logic. This is possible because of the basic category of dialectics, i.e., contradiction.86 A contradiction represents together a constant and its 'not' of the formal logic. Thus, besides 'either-or' of formal logic, dialectics recognises also 'both this-and that', as Engels has put.87

So when contradiction is seen by dialectics, non-contradiction also forms part of it, one aspect or side of the contradiction. Now this subtle difference can be easily torpedoed


86. Cf. E.V. Ilyenkov, Dialectical Logic, Progress, Moscow, 1977. p.320. "Contradiction as the concrete unity of mutually exclusive opposites is the real nucleus of dialectics, its central category." (emphasis added)

by formal logic, if the contradiction is taken as external, as that between two absolute non-contradiction. Actually the contradiction is internal, that between two sides, a division of one into two and their unity, not a unity of two into one and their presumed separation; contradiction is internal and it explains the self movement. This relation can become external also; but it is basically internal, internal to the whole or totality. Formal logic externalises it absolutely, to make the two sides into two separate unconnected entities.

One method resorted to by formal logicians in order to avoid giving logical status to 'contradiction' is to take the internal contradiction as external. Ilyenkov explains this. This is to represent the internal contradiction, expressed in thinking as a logical contradiction, as an external contradiction of two things, each of which was, in itself, non-contradictory, a procedure known as reducing the internal contradiction to a contradiction 'in different relations or at different time'.

88. The last article in the Three Major Struggles on China's Philosophical Front (1949-64) gives a detailed account of this aspect of dialectics. All the four articles are written by 'Revolutionary Mass Criticism Writing Group' then in China. See Three Major Struggles on China's Philosophical Front (1949-64), Foreign Languages Press, Peking, 1976. 48-66.

89. E.V. Ilyenkov, op.cit. p. 327.
By externalizing the relation, a contradiction is made into two absolute non-contradictions so that formal logic can have its self-satisfaction. They understand only "logical contradiction", not the "logic of contradiction". That is why they think that it is the duty of science (read: science of formal logic) to eliminate contradictions.

Karl Popper is very noticeable for his stand against dialectic. In *What is Dialectic?* 90 he says:

... if one were to accept contradictions then one would have to give up any kind of scientific activity: it would mean a complete break down of science.91

We have already tried to show the narrowness of such a conception. He takes the help of Aristotelian logic for his reasoning. Interestingly, like Aristotle he also considers only deduction as proper logic. Popper thinks that there is "no reason to believe that dialectic has anything to do with the deduction."92 Let us ask him: then what about induction? There

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91. Ibid. p. 317.

92. Ibid. p. 322.
lacks the dialectics in him. Not only that Popper denies a logical status to 'contradiction', but he is completely against dialectics. Popper alarms:

... I think it is clear that one should be very careful in using the term 'dialectic'. It would be best, perhaps, not to use it at all... 93

Let us also note the subjectivism in this rabid anti-dialectician.

The only 'force' which propels the dialectic development is... our determination not to accept, or to put up with, the contradiction between the thesis and the anti-thesis. It is not a mysterious force inside these two ideas, not a mysterious tension between them which promotes development - it is purely our decision, our resolution, not to admit contradictions, which induces us to look out for a new point of view which may enable us to avoid them. 94

Here Popper and his 'scientific' method self-explain their best.

Richard Norman, more refined than Popper, follows basically Popper on the issue of 'contradiction'. For him, contradictions, like paradoxes, are "thought-provoking", 95 but "the existence of the contradiction shows that there is something wrong with the theory..." 96 He presumes clearly that accepting contradiction as a category in logic means to assert a self-contradictory position. This presumption is clear when he says that

93. Ibid. p. 323.
94. Ibid. p. 317.
96. Ibid. p. 51.
"the existence of such 'contradictions' can be stated without having to assert any self-contradictory proposition." While dialectical logic explains and comprehends non-contradictions, Richard Norman tries, in vain, to do the converse job of explaining contradiction within the law of non-contradiction, and in that job he confuses contradiction with self-contradictions.

We have already seen the possible reasons behind this inability to grasp the "logic of contradiction". In this section as well as in the section on 'Dialectical Answer to Formal Logic' (2.8), we dealt this in depth. Now it is time to wind up our discussion on dialectical logic by pointing out the essence and essential manifestations of dialectic.

Conclusion

The essential points of dialectics can be summed up so that we can trace them in Kant and Hegel. The essence of dialectics is the law of contradiction introduced by Hegel. We

96. Ibid. p. 51.
97. Ibid. p. 52.
98. Ibid. p. 51.
will see that this is the dialectical opposition in Kant.

There are other points of manifestations of dialectics. They are the element of history, and interaction and interchange of categories. As a pointer to the origin of dialectics, the triadic element also can be traced.

In the coming two expository chapters, we will trace the dialectics in Kant (Chapter 3) and Hegel (Chapter 4).