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DISCUSSION OF DIALECTICAL MATERIALISM

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BRIEF REMARKS ON WILLIAM WARDE'S OUTLINE COURSE ON "DIALECTICAL MATERIALISM"

By Marc Loris

Comrade Warde's pamphlet raises many problems which deserve discussion. Here I will try to indicate the point around which, it seems to me, most of these moot questions gravitate.

On page 9 the pamphlet says: "As the bridge between the philosophical or semi-religious and the completely scientific conceptions of the historical process, it (dialectical materialism) partakes of the nature of both." Thus we learn that the doctrine of Marx has, to a certain extent, a semi-religious character. This is the thesis of Eastman and Hook (after many others). Comrade Warde's only difference with them is that they see in this fact a negative side, while he accepts it as a positive, or at least a neuter feature. If we adopt this premise of his and theirs of the "semi-religious" character, then I must say that their conclusion is more consistent and more correct than his. It is clear that if there is something religious in dialectical materialism, we must try to eliminate it, and, if this purge be impossible, we would have to discard dialectic altogether.

Further on, the same conception is developed (page 9): "Insofar as it (dialectical materialism) fills out the gaps between the sciences with speculative ideas, which may turn out to be one-sided or false with the further advance of knowledge, it plays the role of the old philosophy." Thus, dialectical materialism provides us with speculative ideas and, in a certain measure, plays the role of the old philosophy. If this is so, it becomes a metaphysics; and from there flows its semi-religious character. But how to reconcile such a conception with Marx's persistent struggle against the metaphysician who for him, as for Feuerbach, was a "priest in disguise"?

The gaps between the sciences are not to be filled with speculative ideas, but with science itself. The gap between physics and chemistry has been filled with atomic physics. The gap between chemistry and biology is being filled by the study of the crystallizable virus. The gap between the biological and the social sciences has to be filled by psychology, especially of children, of primitives, of superior animals, by the study of primitive societies, of group life of superior animals, etc. There is no room for "speculative ideas" and "old philosophy". Science itself organizes its unity by filling in gradually the gaps which separate its different branches.

Of course, "speculative ideas" and "old philosophy" have a propensity to accumulate in any place science has not yet filled up, like dirt between paving-stones. But has Marxism any reason to adopt such survivals of the intellectual past of mankind?

On page 8 the pamphlet declares: "It (dialectical materialism) arises at a point when positive science and its rational methods based upon natural causation are taking over all fields of knowledge and there is no longer any need or room for a special science of philosophy, standing apart from the sciences and above them." It is rather difficult to visualize how dialectical materialism, which, according to the same pamphlet, is a "general philosophy," can arise when there is no longer any need or room for it, that is, when it is neither necessary nor possible.

It seems to me that all these difficulties of Comrade Warde's come from the fact that he gives a metaphysical or, to be more precise, ontological character to dialectic. To examine this point let us glance at the transition from philosophy to science. At the beginning of the pamphlet it is said that the sciences emerged out of philosophy. However, the important question of the chronological order of this separation is not touched upon. The question is an important logical one, connected with the problem of the classification of sciences, and also an important sociological one: why does class society permit at a certain time one science to emerge and not another one. Mathematics existed as science for the Greeks. Physics appeared as a clearly definite science with Galileo in the 17th century, chemistry with Lavoisier in the 18th century, biological sciences in the 19th century with Darwin and Claude Bernard, social science with Marx and psychology with Freud. Some dates may be questioned, but the general movement is clear.

What, then, remained of philosophy? First, that which has been the core of philosophy -- metaphysics or ontology (Aristotle's "first philosophy"), whose object is to study "absolute Being," "Being in itself," first causes and final ends. All this is "religion in disguise," that the sciences have overcome. Metaphysical problems have either been reduced to questions subject to scientific inquiry or proved to be meaningless. Their only remaining interest for us is to ascertain why they were raised by certain societies at certain epochs.

The second great remnant of philosophy is logic. As the sciences have for their subject-matter various domains of reality (physical, biological or social), <u>logic</u>, in the broad sense of the word, takes as its <u>subject-matter</u> the sciences themselves. It follows their development, studies their methods, establishes how knowledge grows. This general logic is better called epistemology, the science of knowledge, and includes as a part formal logic, which is the science of consistency in passing from a group of statements to another without taking direct support into reality. Just as other sciences lean on those which preceed them, for instance, chemistry on physics, or biology on chemistry, epistemology finds support in psychology, sociology, and the history of the various sciences, without ceasing to have, of course, its own field. At the present time this field is far from being clearly definite. Epistemology is still in a condition similar to that of social science or psychology many decades ago. But following them, it is engaged in the same emergence out of "old philosophy".

After this brief review of the passage from philosophy to science, let us see what the pamphlet says on page 30: "The basic problem of philosophy is the question: what is the nature of reality?" This is a metaphysical question; it is even the fundamental question of metaphysics par excellence. Two thousand years of discussions around it have revealed its emptiness. The pamphlet continues: "Dialectical materialism answers that the fundamental feature of reality is its contradictory character."

The question of "the fundamental feature of reality" seems meaningless to me. As for the answer the pamphlet gives to this problem, a general discussion of it would lead us to inquire into the meaning of "contradictory". I prefer now to reserve it for some other time and simply to deal here with the examples the pamphlet gives.

On page 33 it is said: "Each side of the contradiction contains the other and whichever is foremost at any given moment can retire and give way to its opposite. Neither pole is absolutely fixed in its present composition. Male can become female, high low, the capitalist a wage-worker, and vice-versa." What is meant by saying that the capitalist can become a wage-worker "at any given moment"? "And vice-versa"? This "vice-versa" is really magnificent! Is the American theory of "unlimited opportunity" the best example of dialectic? Does the transformation of male into female follow the same pattern as the transformation of the capitalist into the wage-worker? Where does that take place? On the earth, on Sirius or on the meek paper the pamphlet is printed on? If, with a great deal of casuistics, one can construct such a pattern, what is its meaning and its value?

I could ask the same questions for the other examples on page 36: "In the sphere of organic nature, female stands opposed to male, one species to another, animals to plant, death to life. In the organic world, acids to alkalis, rest to motion, black to white, earth to sun, these are examples of contradictory natural relations." In what sense can the relation of acids to alkalis be called "contradictory"? And what has the relation of acids to alkalis to do with the relation of black and white, or of sun to earth? Would I be unfair to recall here that the alchemists long ago established a correspondence between chemical elements and planets? If there is any relation, it belongs to the field of scientific physics. But here we have nothing but empty abstractions, - and the hope of discovering in them "the fundamental feature of reality"! All this is an example of the trap into which one falls when he gives a metaphysical or ontological character to dialectic.

One may object: "But does not the dialectic of ideas reflect the dialectic of nature?" The relation of logic to nature is not a simple one, and I do not intend to solve it in these brief notes. But I will take a simple example to illustrate my thought.

The history of the theories of light is very rich and follows a pattern that one may call dialectical. The first scientific theory of light was formulated by Huygens, for whom light was an ondulatory phenomenon (waves). This theory was superseded by Newton's, according to which light is made of corpuscules. This theory was in turn annihilated by Fresnel, who, after studying the phenomenon of diffraction, concluded that light is similar to waves. His ondulatory theory, however, was not simply Huygen's, but was much more elaborated. In the last three or four decades, phenomena have been discovered, which cannot be explained by the ondulatory theory, but make necessary again a hypothesis of corpuscules (photons), but, of course, not as crude as Newton's. At the present time, certain phenomena of light can be explained only by the ondulatory theory, others only by the corpuscular theory, and finally some by either theory. This situation is extremely unsatisfactory, and it will likely be overcome by some new theory which will combine the ondulatory and corpuscular aspects in some higher synthesis.

But this development of theories does not "reflect" any development of light, for the light scientists study today is the same that Huygens, Newton and Fresnel did, or, if there is any difference, the theories whose development we have reviewed are not concerned with the difference.

All the themes of dialectic have a great value in the epistemological field, but become empty abstractions outside. Let us take an elementary proposition of dialectic, the universality of change. Applied to nature, this "law" has no great value, for the movement of an atom does not follow the same pattern as the development of a cell, the solar system does not follow the same scheme of evolution as capitalist society, etc. The "law" remains quite barren. It can, at best, pretend to repeat in a very vague form what sciences teach us with the utmost precision. Still, we know that the universality of change is a useful thought. And why are we led to express such a proposition? Because we observe, especially at certain periods, a strong resistance to any idea of change, of evolution, of relativity. The mind clings to the idea of permanence, of absolute. Numerous examples to illustrate this point will come to the mind of anybody who knows even slightly the development of sciences. So the dialectical proposition of the universality of change has put us on the track of a very important <u>epistemological</u> fact, which has deep ramifications in psychology (evolution of reason) and in social science (resistance of a class society to any idea of change). Useless on the ontological plane, the observation is extremely valuable on the epistemological one. The proposition of the universality of change simply expresses in an inverted form the resistance of human mind to change, and it is clearly an epistemological affirmation, not an ontological one.

A discussion of the other themes of dialectic would lead us to a similar result (problem of contradiction, etc.) And the general conclusion is: materialist dialectic belongs to the field of epistemology. It deals with the development of knowledge. In

this field it brings extremely valuable contributions. But when transferred into the external world, it can only formulate extremely vague abstractions which, as a duplicate or substitute for precise scientific laws, have neither value nor use. And in attempting this transfer, one always risks falling into the old trap of metaphysics.

Comrade Warde attempted it and he fell into the trap. He fell in it so deeply that he came to speak of the "semi-religious" character of Marx's doctrine. And here I come back to the first point of these notes. As I tried to show, this affirmation of his of the "semi-religious" character is closely connected with his transfer of dialectic from the epistemological field to the ontological one. We can take all the necessary time to discuss this last question, that is to say, the relation of logic to nature. But it seems to me that the party should find one way or another to clarify immediately the affirmation of the "semi-religious" character, made in an official party pamphlet.

April 18, 1943

IN DEFENSE OF MATERIALIST DIALECTICS

An Answer to Comrade Loris

By William F. Warde

In his document Comrade Loris presents himself as a defender of dialectical materialism against what he construes as my mistaken version of Marxist philosophy. His motive is laudable. Unfortunately, Comrade Loris has failed to distinguish an adherent of materialist dialectics from an opponent. Having chosen the wrong target, his criticisms fly wide of the mark. That is not all. In order to combat my orthodox exposition of dialectics, he himself has borrowed theoretical weapons which do not come from the arsenal of Marxism. On this road he runs the risk of falling into disagreement with the materialist method.

Dialectical Materialism and Religion

Comrade Loris begins by raising the important question of the relation of dialectical materialism to religion. But what disagreement can there be on this issue among us?

Dialectical materialism has nothing in common with religion. As the most consistent school of materialism, Marxist philosophy regards religious ideas and institutions as reactionary rubbish. We oppose any belief in supernatural or immaterial forces. The Marxist movement is militantly atheistic, the only uncompromising enemy of "the opium of the people."

Although religion had sufficient material and intellectual reasons for its past existence, and even for its persistence in capitalist society, progressive humanity has irrevocably cast religion aside. Religion belongs in the museum of antiquities together with cannibalism, war, exploitation as relics of man's savage and barbaric origins.

This is the view set forth in my lectures. It is the basic line of argument explicitly directed against the conceptions of the revisionists. Yet Comrade Loris tries to make out that I hold quite another view, the view of Eastman, Hook and other revisionists that dialectical materialism bears a "semi-religious character."

He has apparently been misled by the adjective "semi-religious" in the sentence quoted from my lectures. This adjective, I readily grant, is poorly placed and could give rise to misunderstanding. However it referred not to dialectical materialism but to the philosophy of the past out of which Marxist philosophy has emerged and beyond which it has developed. Philosophy before dialectical materialism had been, as I pointed out, an extremely complex and contradictory form of ideology, "a composite of religion and science, a blend of fact and fiction, of natural causation and supernatural spiritualism."

There is no need to eliminate anything religious, semi-religious or metaphysical from dialectical materialism because no such nonsense ever entered into it. In creating their revolutionary new system of thought, Marx and Engels carefully and critically sifted the entire heritage of past culture, including philosophy and the sciences; purged them of all traces of metaphysics; preserved and developed whatever was valuable in their achievements and viable in their ideas. Here nothing more drastic need be done than to eliminate the poorly-placed adjective from that troublesome sentence and to understand its real reference.

Those who agree on basic issues can have little difficulty in arriving at an agreement on questions of formulation. It must be stated candidly, however, that what Comrade Loris questions is not simply this or that isolated formulation of mine, but fundamental principles. Let me briefly discuss some of these. First of all, the relation of logic, both formal and dialectical, to the external world.

Loris on Formal Logic

Loris defines formal logic as "the science of consistency in passing from a group of statements to another without taking direct support into reality." He ignores the fact that, in the process of thought, statements not only "pass from one to another" but flow out of objective reality and pass back into it. The truth or falsity of propositions arises out of their correspondence, or lack of correspondence, with material reality.

Loris explicitly excludes this intercommunication between thought and reality from his definition. He keeps formal logic entirely enclosed within the province of propositions; buries it inside the mind; shuts it off from the rest of reality. This scholastic version of formal logic is very fashionable nowadays among pedants in the universities. It has nothing in common with Marxism.

Aristotle, the creator of formal logic, would have laughed at the contention that formal logic "takes no direct support into reality." If the laws of formal logic applied simply and solely to statements or relations between statements and did not coincide in content with anything in the material world, they could have no truth, power or relevance and would long ago have been discarded.

Formal logic remains true and useful and still constitutes part of logical science because its ideas do correspond in some measure to features of the external world. They are only partially true because their correspondence to reality is limited. Despite their appearance of formal consistency, the laws of formal logic contradict the fundamental aspects of material reality and have therefore been superseded by a higher system of logic, materialist dialectics.

Logic and the External World

Logic is the topmost branch of the living tree of human

knowledge. If we trace the branch of a growing tree to its underlying motive forces and material support, we ultimately come to its roots thrust into the earth. It is no different with logic. The content of logic is derived, to be sure, from the procedures and products of thought. But since thought derives its content from material reality, the content of logic is, in the final analysis, derived from the external world. This belongs to the ABC's of materialism.

Logic seeks to perform the same service for thought that thought does for the rest of reality. It examines the nature of the thought processes and their products; delves ever more deeply and surely into their inner depths; learns the laws of their operations; and acquires greater power over their forms and functions.

Logic is thus immediately connected with the processes of thought. But that does not mean, as Loris implies, that it is organically cut off or shut off from the material world beyond. That is the illusion of formalist logicians who mistake the superficial appearance of logic for its real essence. Logic deals directly with the thought processes -- but the thought processes deal directly with objective material reality "on the other side" of thought. Logic therefore necessarily remains in living contact and constant communication with the external world by means of the thought processes from which it takes its immediate content.

Thought is the mother of logic -- but the rest of reality is its father. Those logicians who seek some immaterial parentage of logic resemble the Church fathers who maintained that Christ was born in an immaculate manner. For us logic, like everything else in the world, has been materially conceived and is sustained and nourished in a material fashion by the material world. Logic did not fall from the sky but grew up out of the earth, that is to say, out of the conditions of man's natural and social existence.

The Nature of Reality

Loris expressly forbids anyone to inquire into the nature of reality. Even to pose such a question is "metaphysical" and "meaningless". There have been many philosophers who turned their backs upon the nature of reality... or the reality of nature. But reality nevertheless remains before us, even if we firmly shut our eyes, and insistently awaits an explanation of itself.

What good is any philosophy that can't explain to us the nature of reality? In fact, one of the peculiar functions of human consciousness is to explain unconscious nature to itself -- or, more precisely, to the human beings who are the creatures of nature.

So overpowering is this practical need for an exposition of reality that Loris himself cannot conform to his own theoretical tabu. Immediately after enjoining us never more to speak upon the subject, he himself proceeds to discourse upon the nature of reality. Not directly, not positively, but in an indirect and negative

manner. He does not know what the nature of reality is and he prohibits anyone else from telling him. But at least he knows very well what reality is not. To believe Loris, reality is not contradictory!

Hegel, who knew that "all negation is determination", could have warned Loris that anyone who knows, or thinks he knows, what reality is not, already knows a great deal about what reality is. When a worker discovers that Stalinism is not Marxism, he has learned so much about this political reality that he can, if his insight be progressively developed, become a Trotskyist. Similarly he who knows what reality is not has already determined the main lines of his philosophy.

In fleeing from reality and prohibiting any investigation into its essential nature, Loris departs from Marxism. Dialectical materialism goes forward to embrace reality and to penetrate it as far as human resources can reach. Marxist philosophy unambiguously asserts not only that the nature of reality can be known, but that it is already known, not completely -- this is impossible! -- but sufficiently for our practical needs. It further holds that there exist no ascertainable limits to man's insight into the real world and potential control over its parts.

Let us remind Loris that the philosophy of Marxism is not called "dialectical materialism" by accident. It is so named because reality has been found to be matter in motion, and motion has a dialectical, that is to say contradictory, character.

The Nature of Contradiction

Loris, however, will not permit contradictions to have any objective reality or objective reality to possess any contradictory characteristics. He postpones any "general discussion into the meaning of contradictory," just as he evades any inquiry into the nature of reality. Instead of clearly and squarely confronting his position on "the nature of contradiction" with the views set forth in my lecture, Loris singles out a few isolated examples of contradictory relations for attack. This is an "example" of Loris' method.

Since dialectics is the logic of contradiction, it would take a treatise on dialectics to present a comprehensive account of this category. For our present purposes, let me give the following summary statement of the Marxist conception of contradiction.

1. Contradiction is a relation of opposition which, when fully developed, passes into polar opposition.

2. In the course of development, the poles of any given contradiction evolve out of identity through diversity into incompatibility.

3. Contradictions objectively exist and operate as relations of opposition within nature and society as well as the human mind.

4. Subjective contradictions (psychological and logical) reflect and have their roots in objective material contradictions.

5. All contradictions are relative, limited, provisional, and can, under certain material conditions, be overcome, abolished and left behind. That is to say, contradiction itself has a contradictory character which leads it to pass into non-contradiction or consistency with itself.

Loris, however, wants to keep the laws of dialectics, including contradiction, inside a single field, that of epistemology, and to imprison them there. Everything in our experience speaks against him.

Did not our struggle with the petty-bourgeois opposition arise from the fact that they could see no objective material contradiction between the Soviet Union and world imperialism nor the deepening contradiction between the Stalinist bureaucracy and the material conquests of the October Revolution? Our recognition of the reality of these contradictions and their blindness to them engendered another contradiction between them and us which resulted in the objective political reality of a split.

Wouldn't Hitler and Roosevelt, not to mention other imperialist leaders, be much happier if the contradictions of world imperialism existed only in the theory of knowledge! If only the capitalist class were really persuaded that the contradictions of capitalism were imaginary! Indeed, if the contradictions of capitalism were not real and aggravated, we should have to abandon hope in the advent and triumph of the socialist revolution which is engendered by them and develops together with them. What is the struggle of the working class against world imperialism but the highest expression of the contradictory social interests of the contending classes?

Nature is no less contradictory than society...and society, let us not forget, is also part of nature.

The Practical Value of Scientific Laws

"If, with a great deal of casuistics, you can construct such a pattern, what is its practical value?" asks Loris. First of all, Loris confuses sophistry with dialectics. The patterns of logic were constructed, not by means of casuistry, but out of dialectical thinking about the processes of thought.

In the second place, these patterns of dialectical logic have the same value as any other generalization in science, such as the law of value in political economy, the class theory of the state in politics, the laws of quantum mechanics, or the theory of evolution in general. If these laws have practical value and theoretical authority for Loris, he cannot consistently deny the same kind of usefulness and authority to the logical laws which are a generalization and extension of them.

In his effort to exclude contradiction from reality and logic from the objective world, Loris has in reality robbed science of all value and validity. If the laws of logical science have no worthwhile application to the external world, then all other scientific laws are useless because they stand upon the same general ground.

Just as materialist dialectics issued out of the sciences, so the sciences themselves have developed out of general social practice, the techniques of industry included. Loris holds that, although the "themes of dialectics have a great value in the field of epistemology" (why? how?), they become "empty" when transferred to the external world. Let us check this conception of dialectics and of scientific law against a typical case of industrial practice.

It is a law of plane figures that two points equally distant from the extremities of a line determine the perpendicular bisector of that line. Although this geometrical law has a far more special and limited content, it is no less abstract in form than any law of logic. Does it therefore become empty, barren, vague when applied to the external world? Let us see.

Suppose the blueprint of a machine calls for locating and drilling a one-quarter inch diameter hole on the center line half way between two tapped holes. An inexperienced worker asks: How can I do this? I give him the following directions: Take a scriber and inscribe intersecting arcs from both ends of the line above it and below it on both sides. Then draw a straight line connecting the two points of intersection. The center will be at the point of intersection of the two lines.

"But how do you know that the layout will be in the exact center?" asks the worker who cannot afford to go wrong. I explain that it is a geometrical law that two points equidistant from the ends of a line determine the perpendicular bisector of that line. Although the worker may not be completely convinced by this scientific formula, couched in unfamiliar technical terms, he obeys my instructions and drills the hole in perfect accordance with the blueprint. He thereupon becomes convinced of the correctness of the law and the authority of my knowledge because he sees that it works in practice.

Does the application of the law give sterile and vague results? On the contrary, it leads to the most precise and productive consequences. The law of plane geometry which originally came out of empirical practice returns to guide and to fructify further practice. The laws of dialectical logic work in the same way as the laws of geometry.

Take the dialectical law that, at a certain critical stage in the development of a process, accumulated quantitative changes produce a new quality. If we apply this formula to a current political problem such as: is China waging an independent struggle for national independence or is it, like Mexico, completely subordinated

to an imperialist power? -- this general rule does not give us any immediate answer. But it tells us how to analyze the particular material circumstances of China's struggle; how to appraise the relative weight of the relevant factors; and how to arrive at a correct conclusion.

Thus in actual practice, in real life, the reciprocal relations between scientific law (of which logical science is but one instance) and the external world is diametrically different from Loris' picture. All laws, formulas, rules which have objective material content in any field of knowledge lead, not to vagueness and sterility, but to the most precise and productive results. Whatever is true in our scientific knowledge, no matter how abstract its form, can prove useful in practice.

Conversely, whatever is false in theory will be valueless in practice and we will go wrong if we stick to it. This is the case with Loris' false conception of the nature of law. His laws must remain "barren virgins" because they have no organic contact with the external world. Loris' theoretical error consists in divorcing the abstract from the concrete, theory from practice, law and logic from the material world. These are not only opposite but inseparable and interconvertible aspects of reality.

The Materialist Method of Abstraction

Loris tries to restrict the laws of dialectics to epistemology on the ground that they are abstractions. It is, however, no condemnation of an idea of a thing to characterize it as an abstraction. This is especially true of the conceptions of science. There are true and false, rich and empty, productive and sterile abstractions. In any concrete case the questions which have to be answered are: what kind of abstractions have we before us; what are they abstracted from; do they correspond to anything real and objectively verifiable?

"The themes of dialectics" are abstractions -- but they are not, as Loris asserts, empty or barren abstractions. In fact, they are the most densely packed and productive of all abstractions because they enclose and express the most varied and extensive material content. All scientific laws are abstract in form. This is true not only of the laws of dialectical logic but of physical and social laws. The law of value is extremely abstract but it nevertheless determines the concrete conduct of the monopoly capitalists and their political agents. Darwin's theory of organic evolution is abstractly formulated, yet every organism conforms to its laws.

What, after all, are "the themes of dialectics" abstracted from? Loris implies that they are taken from human knowledge alone and remain within the mind. But where does the human mind get its knowledge from? According to Engels, "Dialectics, so-called objective dialectics, prevails throughout nature, and so-called subjective dialectics, dialectical thought, is only the reflex of the movement in opposites which asserts itself everywhere in nature, and which by the continual conflict of the opposites and their final

merging into one another, or into higher forms, determines the life of nature." -- Dialectics of Nature, pp. 206-7.

The dialectics of thought reproduces the dialectics of nature and of society. This can be demonstrated in the intellectual process of abstraction itself. Mental abstraction reflects in its own manner and medium the processes which actually occur in the objective environment.

Consider for example the abstractions of political economy in the first section of Capital. In analyzing the nature of the commodity, Marx proceeded by abstracting a commodity into use-value and exchange-value and showing their polar opposition. He next abstracted exchange value into concrete labor and abstract labor, exposed the contradiction between them, and demonstrated that exchange value derives from abstract labor. In this theoretical process of abstraction Marx is reproducing the separate and successive steps which capitalism itself takes in arriving at the value of commodities. Although his scientific investigation and exposition proceeds in the reverse direction from commodities to abstract human labor, it nevertheless retraces and reproduces in thought the successive stages of capitalist production in reality from abstract human labor to the commodity.

Trotsky wrote: "Chiding Kautsky for having condemned 'abstraction' -- without abstract thinking, no thinking is generally possible -- Engels gives a classic definition which shows the difference between a life-giving and a lifeless abstraction: 'Marx reduces the common content in things and relations to its most universal conceptual expression; his abstraction consequently reproduces in concept form the content already lodged in things themselves'". (Engels' Letters to Kautsky, New International, June 1936, p. 76.)

Thus Engels defines the Marxist method of abstraction. He also went on to define the idealist method. "Rodbertus, on the other hand, creates for himself a more or less imperfect mental expression and measures all things by his concept, to which they must be equated." The logical conclusions of Loris' propositions belong rather to the theoretical school of Rodbertus than of Marx.

Empiricists exalt "the concrete" above "the abstract" on principle. The rationalists exalt their abstractions above concrete reality. Materialist dialecticians avoid both errors by recognizing the interplay of the abstract and the concrete and their interpenetration in reality. We arrive at the concrete through a series of abstractions, and, it might be added, we arrive at our abstractions (laws) through experience with and analysis of a series of concrete cases.

Everything Changes . . . Except Things

Loris pushes his viewpoint to absurdity when he comes to consider the question of change. Everything changes: this is an elementary proposition of dialectics. But, says Loris, "this law

has no great value." Why? Because there are different kinds of changes in this world, atomic, cellular, solar, social, and so forth.

Let us apply this astonishing line of reasoning to politics. It is an elementary proposition of Marxism that all states have a class character ... but this law has no great value ... because states differ in kind according to their social constitution (slave, feudal, capitalist, workers.) Or to economics. Commodities are exchanged according to their equivalent value in all commodity-exchanging societies ... but this law has no great value ... because there are different kinds of commodity producing societies (slave, feudal, capitalist and in the transition from capitalism to socialism.)

Loris' views lead to the disintegration and destruction of all scientific knowledge. Unless there exist real bonds of organic unity between diverse phenomena, no law can be derived from or applied to them.

Although Loris will give no objective reality to change, he generously concedes some value to this "elementary proposition of dialectics." "The universality of change is a useful thought" ... because people resist the idea of change. Up to now we had thought that people resisted objective changes. Now we are told that it is all really a question of psychology! How mistaken we have been! It is only the idea of revolutionary change that Roosevelt and Hitler are combatting. By trying to enclose dialectics within "the epistemological field", Loris ends up by making everything psychological in character.

Material Causes and Mental Changes

How would Loris answer if we were to ask the following pertinent questions: Why is there strong resistance to change in society at one point and less at another? Why do some classes resist change and others promote it to the point of revolution? Why does a class pass through various stages in its attitude toward social change, from adaptation to existing conditions, to reform, and then to their forcible overthrow? Why do scientists conceive of nature as fixed and unalterable at one period, and as ever-changing at another?

The basic cause of these shifts and differences in attitude toward change will be found, not in "the field of epistemology", but in underlying and preceding changes in society. All alterations in our outlook, including our conception of change, ultimately come from such material sources. The Utopian socialists went wrong because they failed to understand this basic proposition of Marxism. They thought their ideas of change could become effective without preceding material transformations in society. Socialism became scientific when historical materialism succeeded in explaining the real interconnections between the development of productive forces and the superstructural changes in society from epistemology to politics.

Loris reverts to the standpoint of the Utopians without their historical justification. In defense of his position Loris declares that, although this and other laws of dialectics are "useless on the ontological plane ... the observation is extremely valuable on the epistemological one." Materialist dialectics does not admit any such opposition between logical science and material reality. What we know, and know truly, really exists -- otherwise we should not be able to know it.

Loris' affirmation that "the proposition of the universality of change simply(!) expresses in inverted form the resistance of the human mind to change" is simply idealism "in the inverted form" of a negative proposition. The nature of change is determined by changes in nature. Society is an integral part of the material world. Our ideas change in concordance with and in proportion to the sweep of natural and social changes. This is the Marxist conception of the dialectical interrelation between material and mental changes of which resistance to change is simply the negative expression.

Two Conceptions of the Dialectic

"The dialectics of the brain is only the reflection of the forms of motion of the real world, both of nature and of history," wrote Engels in Dialectics of Nature, p. 153. "Our thought, including dialectical thought, is only one of the forms of expression of changing matter ... The dialectic of thinking, having grown out of the dialectic of nature, possesses consequently a thoroughly materialist character", insisted Trotsky (In Defense of Marxism, p. 51.)

Loris' conception of dialectics is quite different from this. Dialectics, he concludes, belongs to "epistemology", that is to say, entirely and exclusively to a single sphere of human thought. "It deals with the development of knowledge ... but when transferred into the external world, it can ... have neither value nor use." These words nakedly expose the false trend of Loris' ideas. We do not deny that dialectics "deals with the development of knowledge". In this field as in all others the application of the dialectic is most necessary and fruitful. But what, please tell us, does knowledge deal with? Does it not concern itself with that very external world which Loris considers infinitely distant from dialectics? It is not true, then, that dialectics, even in epistemology, deals with the external world through the medium of knowledge or science?

If dialectics cannot at all be transferred into the external world, then how did Marx employ materialist dialectics to discover the laws of capitalism? Or perhaps capitalist society is not part of the external world? If dialectics cannot be transferred into the external world, then why did Marx and Engels devote so much labor to studying the dialectics of nature? Perhaps Engels erred in writing about the dialectics of nature? According to Loris, he should have restricted himself to writing only about the dialectics of epistemology.

In that case Engels would not have been a materialist dialectician. He would not even have been a consistent disciple of Hegel. Hegel (not to speak of Aristotle) would have scornfully dismissed any dialectician who separated or divorced thought and being. For all great dialecticians, the laws of thought reflected in principle and in content the laws of objective reality.

This is most true of the materialist dialecticians. "Dialectics reduced itself to the science of the general laws of motion -- both of the external world and of human thought -- two sets of laws which are identical in substance but differ in their expression, insofar as the human mind can apply them consciously... The dialectic of the concept itself became merely the conscious reflex of the dialectical motion of the real world. -- Engels, Feuerbach, p. 44.

The Role of Hypothesis in Scientific Method

Loris informs us that "the gaps between the sciences are not to be filled with speculative ideas, but with science itself." New branches of science will appear to amplify and link up the old. But he neglects to tell us how this will be done. How do the sciences produce a new branch of science; how does an existing science advance to a higher stage; how does it proceed to extend, correct, and define its laws? In other words, what is science and how does it develop?

These questions of method constitute the essence of the matter in dispute. Loris slithers around them as though they did not exist.

Scientific thought develops along dialectical lines in obedience to the material needs and impulsions of society. Let us concentrate upon the theoretical side of this process. How does natural science move forward? Engels says: "The form of natural science, insofar as it thinks, is the hypothesis. A new fact is observed which makes impossible the previous mode of explanation of the facts belonging to the same group. From this moment onwards new modes of explanation are required -- at first based only upon a limited number of facts and observations. Further observational material weeds out these hypotheses, doing away with some and correcting others, until finally the law is established in a pure form. -- Dialectics of Nature, p. 159.

Thus the principal theoretical instrument of natural science is the hypothesis, which is essentially speculative in character and stands in need of verification by experience.

Science can no more advance without speculative ideas or hypotheses than trees can branch out without putting forth buds. But neither do the sciences remain indefinitely in the hypothetical stage. This is where the empiricists, agnostics, and pragmatists go wrong in their conceptions of scientific method.

They fall into the error of taking the hypothetical stage for

the whole of science. The best-verified and most strongly confirmed laws, they say, can never become more or other than hypotheses. This view of science is one-sided and false because it fails to take into account the dialectical changes which inevitably take place in the content of science as it develops.

The sciences start with hypotheses, but they end with laws. As our knowledge grows, the element of speculation in our ideas diminishes and the element of ascertained fact increases. At a certain point in this process, a qualitative leap occurs. The hitherto predominantly hypothetical generalization becomes converted into a verified law, a determinate truth. This happened in the very case cited by Loris: "The gap between physics and chemistry has been filled with atomic physics." The view that matter was atomic in constitution was little more than a guess when it was first broached by the Greek materialist, Democritus. It took almost 2500 years before this hypothesis was converted into verified fact and became the basis of a separate branch of science.

The primary proposition of pragmatism, and of empiricism in general, is that all knowledge, including the knowledge of nature, is purely relative. This theory of knowledge is one-sided. Dialectical materialism takes into account the relativity of all knowledge but it goes far beyond this. As Lenin pointed out: "The limits of approximation of our knowledge to the objective, absolute truth are historically conditional, but the existence of such truth is unconditional, and the fact that we are approaching nearer to it is also unconditional." Materialism and Empirio-Criticism, p. 198.

This question of the nature of knowledge becomes politically acute in the struggle of scientific socialism against petty-bourgeois opportunism. The basic laws of capitalist development, discovered by Marxism, have been verified beyond doubt by the historical experience of the past century. They are established truths upon which the Marxist movement is solidly based. The upshot of these laws is that capitalism will be rendered so weak, reactionary and intolerable by the aggravation of its internal contradictions that the proletariat will be impelled to overthrow it. The downfall of capitalism and its replacement by socialism are inevitable. These are not purely relative or hypothetical conclusions which may or may not come about. They are determined by the operation of the inner laws of capitalist society.

The pragmatists, empiricists and all those who base their thinking upon petty-bourgeois philosophy dispute these conclusions of Marxism. They say: the issue of the contemporary class struggle is not predetermined; it is only conditioned. Socialism is not inevitable; it is at most highly probable. The positive implication of this theoretical position is that capitalism has some chance to endure indefinitely. Burnham is only the most recent exponent of this type of thought and his practical course consistenly flowed from and was reflected in his philosophizing. Our theory of knowledge can have the gravest political consequences. That is why it is politically vital to clarify our position on this

theoretical question which at first glance appears to be far removed from practical politics.

Agnosticism Versus Materialism

According to Loris, my conception of dialectics is "metaphysical" and "ontological". What do these accusations amount to and what is really behind them?

The term "metaphysical" is used in two different senses. To Hegel and the Marxist school metaphysical thought, in contrast to dialectical, denotes that kind of thought which operates with "absolutes" -- with hard-and-fast distinctions instead of dialectical categories. Loris obviously does not use this term in the usual Marxist sense.

"Metaphysics" is used in an altogether different manner by the positivists who label any school of thought, whether idealist or materialist, which claims to know the nature of reality as "metaphysical". Just as bourgeois-democrats lump together Bolsheviks and Fascists as advocates of dictatorship, so these petty-bourgeois thinkers place Catholic theologians and materialists in the same sack because both claim to know the true nature of reality.

"Ontology", or "the science of being", is associated with Catholic theology. In the language of the positivists, "ontology" has become synonymous with "materialism", just as in petty-bourgeois politics the democrats identify Bolshevism with totalitarian dictatorship. The petty-bourgeois philosophers couple "ontology" with "materialism" for the same malicious reasons as their political partners link "totalitarianism" with "bolshevism"; to smear Marxism by associating it with ultra-reaction and thereby render it odious to the people.

The Kantians, the Humeans, the empirio-criticists, the pragmatists, and most recently, the logical positivists have hurled these hackneyed accusations at the materialists. Loris has inadvertently taken over the terminology of the positivists and flung it at my uncompromising and unambiguous materialist position. There is nothing new in this.

Lenin made the following remarks about the "empirio-critics". "Those who follow the line of Kant and Hume...call us materialists 'metaphysicians', because we recognize the objective reality which is given us in experience, because we recognize an objective and independent source of our sensations. We materialists, after Engels, term the Kanteans and Humeans agnostics, because they deny the objective reality of the source of our sensations." -- Materialism and Empirio-Criticism, p. 100.

The agnostics deny that it is possible for us to know the inner nature of reality, just as the petty-bourgeois democrats deny that we can know the inner tendencies and inevitable outcome of capitalist society. All that we can grasp is the outer shell, the husk, the appearances of things. This may be theoretically inade-

quate, they contend, but it is sufficient for everyday needs. Hume's skepticism, Kants' doctrine of "the thing in itself", the "unknowable" of the agnostics, the "meaninglessness" of the logical positivists are successive expressions of this same trend of thought. Whatever their minor differences, all these branches of empirical philosophy unite in characterizing as "ontological" and "metaphysical" any principled affirmation of the unity of thought and being, of subjective ideas and objective reality. Their thought is infected with an incurable dualism between thought and being, theory and practice, the human mind and the external world. It is itself the worst kind of metaphysics because it makes a mystery of the world by splitting it up into disconnected parts.

Hegel made a definitive rejoinder to all these addlepates from the idealist standpoint. Answering Kant, he pointed out that it is precisely the successive, manifold and contradictory appearances of anything which constitute its essential being, its reality, and that insofar as we grasp theoretically and practically the forms in which anything manifests itself in the course of its development, we know its inner nature.

Marxism reaffirmed from the materialist standpoint this dialectical resolution of the interconnexion between appearances and essences, thought-forms and objective things, mind and matter.

"Meaningless Questions": Their Real Meaning

One of the favorite arguments of agnostics nowadays is to declare, like Loris, that the very question of the relation between thinking and being is "meaningless" because no one can ever know, or needs to know, the true relations between mind and objective reality. This is no argument. It is the evasion of any argument.

In reality, there is no more meaningful and important question for humanity than the relation between man's ideas and his social and natural environment. Upon a correct and comprehensive solution of this problem in theory and in practice, our whole existence depends. Engels, unlike Loris, did not consider the question meaningless. "The great basic question of all philosophy, especially of modern philosophy is that concerning the relation between thinking and being", he wrote in Feuerbach, p. 20.

The agnostics are incurable dualists. They counterpose rational thought (logic) to objective reality and split theory in general from practice. But it is precisely in and through practice that we prove the truth and effectiveness of our ideas and the reality of our thought-processes. Indeed, it is only in practical experience that the very conceptions of "meaningless" and "meaningful" themselves arise and take on meaning. What makes any idea significant or insignificant? Is it not its connections with and correspondence to the objective material reality possessed by things or by thought about things?

By divorcing thought from existence, Loris deprives both of any real meaning for each other or to ourselves. Comrade Loris laments that I have fallen into the "old trap of metaphysics". He himself should take care lest he fall into the trap of agnosticism toward which the logic of his arguments is carrying him.

June 18, 1943

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THE METHODOLOGICAL POINT OF DEPARTURE OF COMRADE LORIS

By John G. Wright

The document submitted to the National Committee by Comrade Loris begins with a criticism of several formulations in Comrade Warde's lectures on dialectical materialism and it ends with an attempt to establish a methodological basis from which all these alleged mistakes flow. In so doing, however, Comrade Loris talks himself into formulations which are far more questionable than all those subjected by him to criticism.

The substance of Loris' analysis is that Comrade Warde fell into a trap and committed grave faults by reason of his failure to delimit in advance the sphere for the application of the dialectic. This contention is not a new one. But the delimitation proposed by Loris is perhaps an innovation. We are told that for the dialectic there is one proper field, and one field only -- that of epistemology, or the theory of knowledge. As Comrade Loris puts it:

"All the themes of the dialectic have a great value in the epistemological field, but become empty abstractions outside."

This assertion is dubious from the standpoint of formal logic, let alone that of Marxism. If in the theory of knowledge, as Loris correctly says, we must think dialectically then it necessarily follows that we should likewise think dialectically in other branches of science. Otherwise one is left with a theory of knowledge that is worthless in the acquisition and extension of knowledge.

But Comrade Loris maintains just the contrary. He repeats:

"And the general conclusion is: materialist dialectic belongs to the field of epistemology. It deals with the development of knowledge. In this field it brings extremely valuable contributions. <u>But when transferred into the external world</u>, it can only formulate extremely vague abstractions which, as a duplicate or substitute for precise scientific laws, <u>have neither value nor use.</u>" (My emphasis).

If these words mean anything at all they mean that no physicist, no chemist, no biologist, no psychologist, no sociologist could have any possible need or use for "all the themes of the dialectic." Epistemologists alone are exempt. But why? It remains a mystery what earthly use any epistemologist could have for a theory of knowledge that cannot be transferred to other fields of science. We await an explanation why any rational being should bother at all with a "development of knowledge" that evaporates into thin air (or in Loris' words, turns into "extremely vague -- and valueless and useless -- abstractions") the moment it is applied to "the external world." (Included in this last sweeping phrase, by the way, are not only the heavens and the earth but society as well.)

Obviously, in trying to extricate Warde from an imaginary snare, Comrade Loris himself fell into a real trap. From the standpoint of Marxist methodology nothing could be more false than to set arbitrary limits to the application of the dialectic.

In the first place, this contention flatly contradicts the basic principle of the Marxist theory of knowledge. Let us recall how this principle was formulated by Marx in his theses on Feuerbach:

"The question whether objective truth can be attributed to human thinking is not a question of theory, but is a practical question. In practice man must prove the truth, i.e., the reality and power, the 'this-sidedness' of his thinking. The dispute over the reality or non-reality of thinking which is isolated from practice is a purely scholastic question." (Second Thesis on Feuerbach).

One of the important epistemological conclusions that flow from this thesis is: a theory of knowledge has no validity unless verified by application (or "transference") to the "external world." Just how does this square with what Loris says?

Moreover, to set limits to the application of dialectic is to rule out in advance from the Marxist standpoint, the only valid test for it as a theory of knowledge.

Comrade Loris is surely acquainted with the ideas of a whole school of renegade radicals headed by the notorious Hook, who tried to "restrict" the dialectic to the sphere of sociology. They pretended that they were thereby purging Marxism of heresies by Engels, vestiges of Hegelianism, and so forth and so on. It remains inexplicable why any one in our movement should seek to compete with these gentlemen in "restricting" the dialectic still further.

All our great teachers, instead of pigeonholing the dialectic into any single field whether that of sociology or epistemology, taught us that it applied to the processes in the whole external world, including man and mind. Far from conceiving that the dialectic becomes dissolved into empty abstractions from contact with

objective reality, our great teachers stressed, on the contrary, the urgency and fruitfulness of such a "transference." And moreover they taught us that it was Nature itself (the "external world") that implanted the dialectic in the human mind.

Sensing that he has gone too far, Comrade Loris, writes:

"One may object: 'But does not the dialectic of ideas reflect the dialectic of nature?' The relation of logic to nature is not a simple one, and I do not intend to solve it in this brief note."

Is this question then so new? Has Marxism no definitive solution of it that cannot be succinctly expressed?

As a matter of fact this was precisely one of the cardinal issues raised in the struggle against the petty-bourgeois oppostion in our party three years ago.

To the champions of "Science" who sought to excommunicate the dialectic from this universe altogether, Trotsky said:

"We call our dialectic, materialist, since its roots are neither in heaven nor in the depths of our 'free will', but in objective reality, in nature." (In Defense of Marxism, p. 51.)

Further,

"Our thought, including dialectical thought, is only one of the forms of the expression of changing matter." (Idem).

"The dialectic of thinking, having grown out of the dialectic of nature, possesses consequently, a thoroughly materialist character." (Idem).

Again,

"Dialectical thinking gives to concepts, by means of closer approximations, corrections, concretizations, a richness of content and flexibility; I would even say a succulence which to a certain extent brings them close to living phenomena." (p. 50)

Similar quotations from Trotsky, Marx, Engels, and Lenin and all their co-thinkers could be adduced to any number. For them the dialectic was not something that became meaningless and useless outside a single field or a number of fields, but on the contrary the best available instrument in all spheres, as Trotsky put it, "for probing more deeply into the world about us."

Here is how Trotsky summed up the Marxist attitude toward logic, both formal and dialectic:

"All this demonstrates, in passing, that our methods of thought, both formal logic and the dialectic, are not arbitrary constructions of our reason but rather expressions of the actual inter-relationships in nature itself. In this sense, the universe

throughout is permeated with 'unconscious' dialectics. But nature did not stop there. No little development occurred before nature's inner relationships were converted into the language of the consciousness of foxes and men, and man was then enabled to generalize these forms of consciousness and transform them into logical (dialectical) categories, thus creating the possibility for probing more deeply into the world about us." (p. 84.)

This is just the opposite of what Loris now makes himself say.

Apparently Comrade Loris was carried away by polemical exaggeration, and fell into a major blunder from which flow many other incidental ones. He must now seriously consider and study whether this blunder actually is his methodological point of departure.

June 17, 1943

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A DOUBLE-EDGED CRITICISM

By J. Weber

Dialectic materialism was developed most fruitfully and most exhaustively in the field of social science. In fact it would be difficult to say what part was contributed to the rounded views of Marx by his enormous researches into the nature and history of society, and what part by his studies of philosophies in general and Hegel in particular. The vast amount of data through which Marx was enabled to establish the laws of social development, at the same time gave Marx the clues which he needed to re-mould Hegelian dialectics. Dialectic materialism replaced Hegelian idealism.

To Marx and Engels their theory was certainly no more contribution to the theory of the development of knowledge; that is, to epistemology. In this field, true enough, they made a great advance forward. But the founders of scientific socialism looked upon their system as a world outlook. It posited certain general ideas -- fundamental, universal laws -- and the workings of these laws in a specific field, the evolution of society. Engels, with the aid of Marx, indicated that the same laws applied to the other sciences. But nobody has worked out a dialectical form of physics or mathematics, let us say. We know that each science has undergone its own peculiar development, with its own peculiar set of entities differing in quality from those of the other sciences, and with different laws of their combination.

Dialectics has therefore remained up to the present an interpretative method in the sciences, and certainly not a method used in detailed investigation. It accepts the findings of the various sciences and incorporates them into its outlook. But there is science and science, and dialectic materialism accepts nothing uncritically. It would be quite easy to show, for example, that the sciences have all followed a dialectic development, often much to the astonishment of the specialists who retain a hopelessly metaphysical attitude even in their own science. Loris cites an excellent instance in the modern theories of light. Is light a wave motion or the effect of actual impinging particles? Modern research has resolved this contradiction in fact if not in theory, by showing that it is either one, depending on the approach made by the scientist. This has introduced the utmost confusion into modern physics, a confusion that will only be resolved by some form of dialectic synthesis.

Scientists are no more exempt from the influence of their social environment than other people. Their thinking, even in their special fields, is tinged by their own "world outlook". This world outlook in the case of a Lodge, a Millikan, a Jeans, is one of religious mysticism. The work of such scientists cannot help but be affected by their general viewpoint. This does not mean that they cannot make scientific observations. In their own fields these scientists made remarkable contributions. One may say that these metaphysicians are scientists in a narrow field despite their

general views. But their work remains restricted and it is necessary to separate critically that portion which is science from that which is not.

It has been correctly pointed out that Newton's religious views are reflected in his great contributions to physics. Space, time and matter were treated by him as metaphysical absolutes. Newton's genius was such that his form of thinking was imposed on science for a long time. It encouraged a mechanistic approach to phenomena precisely because of Newton's absolutist categories, especially that of matter. Newton himself rejected the wave theory of light because it did not fit snugly into his own general scheme of things. Incorrect general views in science tend to hinder the further development of the science. It took an Einstein to reopen modern physics to new great advances.

A striking instance of the influence of mystical religious ideas is observed in the case of Lewis Morgan the great anthropologist. His work was hailed by Marx and Engels as the greatest confirmation of their own views on the development of society. Yet Morgan himself lived in terror of hell-fire and eternal damnation for having founded the science of anthropology. And this attitude acted to prevent him from drawing the correct conclusions from his vast work. Anyone who reads Morgans book on "Ancient Society" with an open mind, cannot help but feel the lameness of its concluding section. The real conclusion could only have been a revolutionary one, the same one drawn by Marx and Engels. But Morgan was fettered by his religious world outlook.

There is an importance in making and understanding these observations on science and the scientists. It was not Marx and Engels who introduced the facts and laws of change in society. Society had been changing from time immemorial. What Marx did was to make us completely conscious of the way in which change took place, more especially the all-embracing change from one social system to another. I need not stress the importance of our becoming conscious of this movement in society. Mankind faces today the tremendous task of saving civilization from going down in ruin by advancing that civilization to a new and higher stage. Our party is itself conscious of the necessary task, and its aim is to make the workers everywhere similarly conscious so as to ease and foreshorten the birthpangs of the new society as much as possible.

It seems to me that Loris fails to evaluate highly enough the significance of the general laws of dialectics. He would at most grant them a decent burial by interring them in the field of epistemology, the development of knowledge. Here Loris polemicizes not with Warde (of whom more presently) but with Marx and Engels. One need read very little of their work to be aware that they always regretted that time and the exigencies of the working class movement did not permit them to unravel the general laws of dialectics not only in the social sciences, but also in all the sciences. They left this task to others. It is perfectly true that the general laws cannot replace or substitute for specific knowledge. But the mode of thinking in any particular field can be consciously impregnated with the dialectic views, in the same way as the social sciences. Such consciousness tends to aid in scientific advance.