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ON MARX'S METHOD IN "CAPITAL"

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ON MARX'S METHOD IN "CAPITAL"

Marx has not bequeathed us explicit teachings on dialectic comparable in extent and precision to his economic doctrines. On dialectic the great theoretician left, on the one hand, fragmentary formulations scattered in his works and correspondence and, on the other hand, the product of his dialectical method, the monumental Capital. We have the fruit of the method but no systematic exposition of the method itself.

Marx, indeed, has thought of such an exposition. On January 14, 1858, he wrote to Engels;

"If there should ever be time for such work again, I should greatly like to make accessible to the ordinary human intelligence, in two or three printer's sheets, what is rational in the method which Hegel discovered but at the same time cloaked in mysticism."

And 18 years later, in 1876, in almost identical terms, he wrote to Joseph Dietzgen;

When I have shaken off the burden of my economic labors, I shall write a dialectic. The correct laws of the dialectic are already included in Hegel albeit in mystical form. It is necessary to strip it of this form.

Unfortunately, Marx dicd without having written those two or three printer's sheets which doubtless would have forestalled many subsequent discussions.

It is clear at first glance that <u>Capital</u> is not, as Trotsky said of the writings of Sombart, an "economic feuilleton", but a powerful construction whose solid framework astonishes the reader. Behind the exposition a forceful method appears. This is what Joseph Dietzgen expressed in his first letter to Marx on November 7, 1867. when Capital had just been published:

"Reading between the lines of your work, I see that the presupposition of your deep-rooted economics is a deep-rooted philosophy."

Lenin, reading and annotating Hegel's Science of Logic during the last war, wrote in his personal notebook:

"It is absolutely impossible to understand Marx's Capital and above all its chapter 1, without having studied and without having understood all of Hegel's logic. Consequently, no Marxist has understood Marx during the last half-century."

Lenin joined Dietzgen in perceiving behind the economic teachings of Marx a "deep-rooted philosophy".

ogical and logical implications, we soon, however, come up against a strange paradox. On the one hand, the discussions about the problem of the dialectic -- and they have been numerous -- have revolved around Marx's early writings, and especially around the writings of Engels. But these discussions have not stimulated a careful examination of Capital, of its structure and method. On the other hand, the controversies about Capital -- and they also have been numerous -- have had as their main subject economic problems (the fall of the rate of profit, crises, accumulation, the collapse of capitalism, etc.), but have not adequately dealt with the method. Thus, the discussions on dialectic have been little concerned with Capital, and those on Capital have been little concerned with dialectic.

To delve into the causes of this astonishing and regrettable situation would carry us far afield. Better to tackle the task of trying to remedy it.

The Change of Plan of "Capital"

We shall examine <u>Capital</u> not so much from the economic as from the logical point of <u>view</u>. From the very beginning an important question faces us: What is <u>Capital</u>? What does the material published under this title really represent? As everyone knows, only the first book was published while Marx was living, in 1867. The manuscripts he left were read and selected by Engels, who published the second book in 1885, the third in 1894. Finally other manuscripts were published by Kautsky under the title <u>Theorien</u> ucber don <u>Mehrwert</u> (Theories of Surplus Value) in three volumes, in 1904, 1905 and 1910 respectively.

Nor did the history of <u>Capital</u> start in 1867. In 1859, Marx had published a small book called <u>A Contribution to the Critique of Political Economy*) which he considered the first part of his theoretical treatise on political economy, the idea of which was in his mind since 1844.</u>

What was the general plan of the work as Marx envisaged it?

Does <u>Capital</u>, what we have of it, represent the whole of the work conceived by Marx, or only a fraction of a much vaster project that he was unable to accomplish? These questions are important for the economic problems of <u>Capital</u>. Thus, Rosa Luxemburg, to justify her thesis of the role of non-capitalist markets, leaned on the fact that the second book of <u>Capital</u> had been left unfinished by Marx and that there was a "gap" in his exposition. The question of Marx's plan of <u>Capital</u> becomes even more central when we turn from economics to methodological problems.

^{*} Horeafter referred to as the Critique.

The plan of Capital had never been carefully studied until Henryk Grossman dealt with the problem in 1929 in his essay on "Die Aenderung des Aufbauplans des Marxschen Kapitals und ihre Ursachen" (The Modification of the Structural Plan of Marx's Capital and its Causes**). Grossman's examination enabled him to show -- definitively in my opinion -- that Luxemburg's economic ideas are not compatible with Marx's doctrine. Grossman's interest was primarily economic, and here our interest is primarily logical; but all studies of the plan of Capital henceforth are indebted to Grossman's contribution.

In a long letter to Engels on the progress of his work in economics Marx writes on April 2, 1858:

The whole crap is to be divided into six books; I. Capital; II. Landed property; III. Wage labor; IV. State; V. International trade; VI. World market.

and in the 1859 preface to the <u>Critique</u>, Marx repeats the same plan exactly:

"I consider the system of bourgeois economy in the following order; capital, landed property, wage labor, state, foreign trade, world market."

Thus the work was to be six books. The first would deal with capital and was to be divided into four sections, as Marx wrote to Engels on April 2, 1858. These four sections were to be:

"1. Capital in general. 2. Competition. 3. Credit. 4. Incorporated Capital." Only when one is aware of this projected division does a sentence in the 1859 introduction to the Critique become fully intelligible. There Marx declares:

The first part of the first book, treating of capital, consists of the following chapters:
1. commodity: 2. money, or simple circulation:
3. capital in general. The first two chapters form the contents of the present work.

The "first part" refers to the first of the four sections of the first book which Marx enumerated in his letter of April 2, 1858.

^{**} Archiv fuer die Geschichte des Sozialismus, 1929.

Marx's plan, then, is as follows:

Table I

1. CAPITAL

- a. Capital in general
 - 1. Commodity
 - 2. Money or simple) circulation)
 - Capital in general)

(A Contribution to (the Critique of (Political Economy (1859)

(Capital as planned (until 1863

- b. Competition
- c. Credit
- d. Incorporated capital
- 2. LANDED PROPERTY
- 3. WAGE LABOR
- 4. STATE
- 5. INTERNATIONAL TRADE
- 6. WORLD MARKET

As we know, this plan was not followed by Marx. On December 28, 1862, he was still writing to Kugelmann:

"I was very glad to learn from your letter that you and your friends take so warm an interest in my Critique of Political Economy. The second part is at last finished, apart from making a fair copy in the final polishing for the press. It will be about thirty printer's sheets. It is actually a continuation of Part I, but will appear independently under the title Capital, with A Contribution to the Critique of Political Economy only as a subtitle. Really it only deals with those matters which should form the third chapter of the first section, namely, capital in general, and does not therefore include the competition of capitals or the credit system."

The expression "the second part" signifies that Marx is still following the plan of 1859. He considers <u>Capital</u>, on which he is working, as the continuation of the <u>Critique</u> and he thinks that these two books are going to form respectively the first and the second parts of the first section of the first of the six books of his economic work.

But eight months later, on August 15, 1863, Marx writes to Engels:

When I look at this compilation now and see how I have had to turn everything around..."

So in the summer of 1863 Marx abandons the plan that he had indicated until then. We do not know yet what the new plan will be. We must wait for Marx's letter to Kugelmann of October 13, 1866 to know the final plan of the work:

The whole book is divided as follows:

Book I. Production process of capital Book II. Circulation process of capital Book III. Forms of the process as a whole Book IV. Contribution to the history of the theory.

The same plan is repeated in the July 25, 1867 preface to the first book of Capital:

*The second volume of this work will treat of the process of the circulation of capital (Book II), and of the varied forces assumed by capital in the course of its development (Book III), the third and last volume (Book IV), the history of the theory." The following table presents the final plan which Marx conceived for his work on economics:

Table II

1. PRODUCTION PROCESS OF CAPITAL:

it formed the first book of <u>Capital</u>, published by Marx in 1867.

2. CIRCULATION PROCESS OF CAPITAL:-

it formed the second book of <u>Capital</u>, published by Engels in 1885.

3. FORMS OF THE PROCESS AS A WHOLE:-

it formed the third book of <u>Capital</u>, published by Engels in 1894 under the title <u>The Process of Capitalist</u> Production as a Whole.

4. CONTRIBUTION TO THE HISTORY OF THE THEORY:-

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published by Kautsky in 1904, 1905 and 1910 under the title Theorien ueber den Mehrwert (Theories of Surplus Value).

The new plan, henceforth the final plan of the work, is so changed that Marx no longer considers the <u>Critique</u> as the first part of his work on economics. He starts anew and incorporates the two chapters of the <u>Critique</u> on commodities, money and simple circulation in <u>Capital</u> where, considerably revised, they form Part I.

In a letter to Engels, April 30, 1868, Marx indicated the contents of the second and third books. The plan of the third book is described with precision and is the one followed by the book published by Engels, with the exception of the two last points (two out of seven), for which Marx did not leave manuscripts.

We have answered the question; is <u>Capital</u>, as we know it, a complete work, or only a part of a greater project? Our answer is that we are in possession of a complete work. Of course, certain minor parts are lacking or unfinished, but the whole structure is before our eyes.

Abstract and Concrete

Our examination of the plan of <u>Capital</u> and of its change in 1863 appears at first simply to reassure us that we have the work as Marx had envisioned it. We will see, however, that our investigation brings us far more than that; it will help us to understand Marx's method.

Let us compare the two plans. What difference strikes us at the first glance? The first plan is more descriptive, closer to concrete reality, while the second plan is more abstract. The second plan represents a system wherein the interdependence and the cohesion of the different parts appear far clearer than in the first.

As Engels states in the May 5, 1885 preface to the second book of Capital, the manuscripts written between August 1861 and June 1863 -- when Marx was still following the first plan -- lacks the "logical connection" which will be found in the later work. This remark expresses quite well the first impression derived from a comparison of the two tables given above. The second plan constitutes a far more unified organic whole.

Let us attempt to make more precise our as yet rather vague observations. To this end we must go back to that centrally important text, the preface to the <u>Critique</u>, dated August 23, 1857 and left unpublished by Marx, which Kautsky published in 1903. Especially the third part of it, entitled "The method of political economy", represents in my opinion the most important methodological document we possess to fill the void left by the absence of those "two or three printer's sheets" on dialectic which Marx never had the leisure to write. Let us note that this preface was left unpublished by Marx not because he considered it insufficient or outdated, but for the reason which Marx explained in his preface of 1859 to the Critique;

"I omit a general introduction which I had prepared, as on second thought any anticipation of results that are still to be proven seemed to me objectionable."

Now that we have the results proved by Marx, let us use this preface of 1857. The citation is somewhat long, but none better than Marx has been able to present Marx's method;

When we consider a given country from a politico-economic standpoint, we begin with its population, then analyze the latter according to its subdivision into classes, location in city, country, or by the sea, occupation in different branches of production; and consumption, prices of commodities, etc. It seems to be the correct procedure to commence with the real and concrete aspect of conditions as they are; in the case of political economy, to commence with the population which is the basis and the author of the entire productive activity of society. Yet, on closer consideration

it proves to be wrong. Population is an abstraction, if we leave out e.g. the classes of which it consists. These classes, again are but an empty word, unless we know what are the elements on which they are based, such as wage-labor, capital, etc. These imply, in their turn, exchange, division of labor, prices, etc. Capital e.g. does not mean anything without wage-labor, value money, price, etc. If I start out, there-fore, with population, I do so with a chaotic conception of the whole, and by closer analysis I will gradually arrive at simpler ideas; thus I shall proceed from the concrete representation to less and less complex abstractions, until I get at the simplest conception. This once attained, I might start on my return journey until I would finally come back to population, but this time not as a chaotic notion of an integral whole, but as a rich aggregate of many conceptions and relations. The former method is the one which political economy has adopted in the past at its inception. The economists of the seventeenth century, e.g., always started out with the living aggregate; population, nation, state, several states, etc., but in the end they invariably arrived, by means of analysis, at certain leading, abstract general principles, such as division of labor, money, value, etc. As soon as these separate elements had been more or less established by abstract reasoning, there arose the systems of political economy which start from simple conceptions, such as labor, division of labor demand, exchange value, and conclude with state, international exchange and world market. The latter is manifestly the scientifically correct method. The concrete is comcrete, because it is a combination of many relations, i.e. a unity of the manifold. In thought, it therefore appears as a process of synthesis, as a result, and not as a starting point, although it is the real starting point and, therefore, also the starting point of observation and conception. By the former method the complete conception passes into an abstract definition; by the latter, the abstract definitions lead in the process of thought to the reproduction of the concrete. Hegel fell into the illusion, therefore, of considering the real as the result of self-coordinating, self-probing and self-activating thought, while the method of advancing from the abstract to the concrete is but the way by which thought grasps the concrete and reproduces it mentally as a concrete. It (This thought-process -- A.B.) by no means, however, is the process which generates the concrete itsolf."

The movement, then, is clear. From the immediately given experience the economist must extract ever more simple abstractions. This analysis is followed by the exposition in which, starting anew from the abstractions he previously acquired, he returns by successive degrees of concretization to immediate experience.

This movement from the concrete to the abstract, then from the abstract to the concrete, makes it possible for the mind to grasp experience. It is essentially the road the mind faced with reality travels to arrive at an explanation. At this point Marx opposes his method to that of Hegel. The latter, indeed, also proceeds from the abstract to the concrete, but he makes this journey of the mind identical with the development of reality itself. For Marx, on the contrary, "the method of advancing from the abstract to the concrete is but the way by which thought grasps the concrete and reproduces it mentally as a concrete."

How to determine which abstract ideas make an explanation possible? No thought is possible without abstraction. But there are abstractions and abstractions. Some prove themselves, so to say, incapable of grasping reality and lead nowhere. Others show great fecundity. Moreover, depending on the moment at which it is introduced into the movement from the abstract to the concrete, an abstraction may show itself now fertile, now sterile. Thus in economics the law of supply and demand allows us to understand a number of facts in a given field; for instance, Marx makes use of it to explain, in the third book of Capital, the formation of an average rate of profit. But if this law is made a general explanation beyond its legitimate field, as it is by the vulgar economists, then it yields nothing but platitudes.

Concepts show their truth by their uses in explanation. The less numerous the concepts from which we start, the less arbitrary their introduction, the more systematic becomes the explanation, and the more it satisfies us. Critics have often reproached Marx for the great number of new concepts and postulates he allegedly introduced. Actually, the number of concepts from which Marx begins is quite small, especially considering the scope of his system.

The second plan of <u>Capital</u> shows precisely a further reduction in the number of concepts from which the exposition starts. Concepts which in the first plan have been taken directly from experience are in the second plan derived from previous, more abstract concepts. The exposition, in returning to the concrete, starts from a far more abstract level than in the first plan and consequently takes on a far more systematic character.

The most striking difference between the two plans is the relation between capital and ground rent. The classic economists considered the opposition between ground rent and industrial profit no less great than that between wages and profit. It is one of the greatest merits of Marx that he surmounted this opposition. He himself was perfectly aware of this when he wrote to Engels on August 24, 1867 on the subject of the first book of Capital, which was about to be published:

The best in my book is ... the treatment of surplus value independently of its particular forms as profit, interest, ground rent, etc. This will come out especially in the second volume. (According to Marx's intention at that time the second volume was to contain the second and the third books of Capital -- A.B.) The treatment of the particular forms by classical economy, which always mixes them up with the general form, is a regular hash.

Marx's great contribution was to reduce profit and ground rent to a *general form", surplus value.

A few months later, on January 8, 1868, in a letter to Engels, Marx accuses Duehring of not having understood the "fundamentally new elements" of <u>Capital</u>, and the first of these is:

"... that in contrast to all former systems of political economy, which take a priori the particular fragments of surplus value with their fixed forms of rent, profit, and interest as already given, I first deal with the general form of surplus value, in which all these elements are still undifferentiated -- in solution as it were."

And Engels in the preface to the English edition of the first book of <u>Capital</u>, November 5, 1886, described Marx's method on this point:

"Political economy has generally been content to take, just as they were, the terms of commercial and industrial life, and to operate with them, entirely failing to see that by so doing, it confined itself within the narrow circle of ideas expressed by those terms. Thus, though perfectly aware that both profit and rent are but sub-divisions, fragments of that unpaid part of the product which the laborer has to supply to his employer (its first appropriator, though not its ultimate exclusive owner), yet even classical political economy never went beyond the accepted notions of profit and rent, never examined this unpaid part of the product (called by Marx surplusproduct) in its integrity as a whole, and therefore never arrived at a clear comprehension either of its origin and nature, or of the laws that regulate the subsequent distribution of its value."

After starting from the "general form", Marx comes back gradually to concrete economic life. Surplus value becomes diversified into industrial profit, commercial and banking profit, ground rent, Credit and competition make their appearance. This process unfolds in the third book of <u>Capital</u>, as Marx himself notes:

"The conformations of the capital evolved in this third book approach step by step that form which they assume on the surface of society in their mutual interactions, in competition, and in the ordinary consciousness of the human agents in this process." In Marx's various plans for his unfinished work the third book is always entitled "Forms (Gestaltungen) of the process as a whole". The word Gestaltungen, which Engels has eliminated from the title of the published book, is only imperfectly translated by "forms", "conformations" or "formations" and can only be understood if we do not lose sight of the movement from the abstract to the concrete which runs through the entire work. Gestaltungen means the aspects, the forms of concretization of capital which appear at that point in the exposition when Marx is returning to concrete economic life, after having, in the first book, begun with the "general form", surplus value.

The discovery of this "general form" is the fundamental cause for the change in plan in 1863 and therein lies Marx's decisive superiority over classic political economics. The entire economic doctrine of Marx is fecundated by it and to follow all its implications would be to run through Marx's entire economic work. Let us take, for instance, the law of the falling tendency of the rate of profit, that cornerstone of the Marxist economic edifice. Having formulated the law, Marx observes that, in spite of its simplicity, political economy so far has been incapable of formulating it and he gives as the reason for this failure:

"... that it never separated surplus value from profit, and never even considered profit in its purely theoretical form, that is, separated from its different subdivisions, such as industrial profit, commercial profit, interest, ground rent."

It is by passing on to the "general form" that Marx has definitively lifted himself above Ricardo and it is by the change of plan of 1863 that Marx finally became the Marx we know and admire.

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The advance in abstraction accomplished by the change of plan has a direct political consequence. If from now on social product falls into two fundamental parts, surplus value and wages, then society must fall into two great classes, those that live on surplus value and those that live on wages. The opposition between capital and landed property fades away before the fundamental antagonism of the capitalist and the proletarian. Socialism supersedes liberalism.

At this point the question might be asked: if the change of plan has such importance for the economic and even political doctrine of Marx, then, from a methodological point of view, does the preface of 1857 -- which dates from the epoch of the original plan -- have as great a value as we discovered in it? The answer to this question is easy if we note that the difference between concrete and abstract is relative. The new plan with its advance in abstraction, represents a more systematic and more radical application of the principles of 1857. In no way does it represent a change in these principles.

If we glance at the works of the commentators and vulgarizers of Marx during more than three quarters of a century, we can only be amazed at how they ignored the importance of the change in plan. We have already noted how little the methodological and logical aspects of Capital have received the attention of the commentators. Even from a strictly economic point of view the change in the plan is of fundamental importance. Yet it has remained completely in the shade until the moment when Henryk Grossmann finally dealt with the problem in 1929.

Marx's biographers are far from having seen the problem. Mehring, it is true, did note that Marx ceased to consider <u>Capital</u> as a sequel to the <u>Critique</u> and started his exposition anew, but the reasons he gives for this change remain superficial:

"The first chapter of Marx's book <u>Capital</u> summed up once again what he had already <u>written</u> in 1859 in his <u>Critique</u> of <u>Political Economy</u> concerning the nature of commodities and money. This was done not merely for the sake of completeness, but because even intelligent readers had often failed to grasp his ideas thoroughly, so that he assumed that there must have been something wrong with his presentation of them and in particular with his analysis of the nature of commodity."

Riazanov does not seem to have understood any better than Mehring the significance of the change in plan.

Like Mehring, Kautsky, in the 1904 preface to the first volume of Theorien ueber den Mehrwert, attributes the change in plan to difficulties in exposition that Marx ran into -- which in a limited sense is true -- but he imagines that Marx found a solution to these difficulties simply by eliminating from his exposition the history of theory and reserving it for the fourth and final book. Kautsky does not see the great progress of the second plan toward a greater abstraction and the methodological reasons for it. And since Kautsky understood nothing of the theoretical roots of the change in plan -- for him it is merely a question of literary technique! -- he did not he sitate in the preface to the second volume of Theorien ueber den Mehrwert, August 5, 1905, to present this work as the "continuation" of the Critique of 1859.

In Marx's various statements of his plan after 1863, the history of theory invariably forms the fourth volume. By considering the Theorien ueber den Mehrwert as the "continuation" of the Critique, Kautsky falls into many difficulties. For Marx's little book of 1859 only dealt with commodity and money (simple circulation). How can the history of Theorien ueber den Mehrwert (Theories of Surplus Value) be the sequel to a book which, even if continued according to the then plan, would never have mentioned surplus value as a "general form"? Kautsky appears, if possible, even more absurd if we remember that Marx in the Critique had undertaken to constantly intermingle the theoretical exposition and the history of theory and that therefore he had not envisioned a special book for the history

of theory (see Table I). This latter does not appear in the plan until after 1853 (Table II), as the fourth book of Capital, and consequently can in no way be considered as a "continuation" of the Critique. Kautsky's lack of understanding of the change in plan is only an example of how little attention has been paid to Marx's method.

The Character of Marx's Economic Categories

No better than Kautsky is A. Leontiev, the author of the article "Marx's Capital" in the Bolshaia Sovietskaia Entsiclopedia, the most authoritative Soviet source. Ignoring the fundamental theoretical reasons for the change in plan, he writes:

The growing size of the work, on the one hand, and the delay in it, on the other hand, lead Marx to the decision to publish the whole treatise not as a continuation of the <u>Critique</u> but in the form of a complete work.

After such misunderstanding, it is not astonishing that Leontiev fails to grasp the character of Marx's economic categories. He says of them:

The logical course of the development of the economic categories in <u>Capital</u> is nothing other than the reflection of the giant road of the historical process, but only in a form cleansed of accidents and phenomena which reveal themselves to be secondary.

Let us close our eyes to the style of this sentence with its "reflection of the giant road" and let us consider its content. It is important to examine and refute, for we often meet the same thought.

The character of economic categories is carefully examined by Marx in the 1857 preface of the <u>Critique</u>. As we have seen, he indicated how more and more abstract categories are extracted from the concrete, and how from these simple categories the economist, passing through even more concrete categories, must return to the given social life. After this Marx poses the question:

"But do not these simple categories also have an independent historical or natural existence antedating the more concrete ones?"

Marx answers: "It depends". And he then develops his answer over several pages.

He begins by recognizing that there is a certain amount of truth in the affirmation that the logical development from the abstract to the concrete parallels the historical development. He takes the example of money, an economic category which he introduces between commodity and capital in the development of value. Money

is a less abstract category than commodity, for money is a commodity that plays a specific role. On the other hand, money is a more abstract category than capital, for capital is not money in general but money which buys labor-power. Money, therefore, precedes capital in Marx's development from the abstract to the concrete and, as he notes, it also precedes capital historically:

Money may exist and actually has existed in history before capital, or banks, or wage-labor came into existence.

And Marx concludes from this example:

*In so far, the laws of abstract reasoning, which ascend from the most simple to the complex, correspond to the actual process of history.

Marx then proceeds to examine the limits of this proposition. He begins by indicating exceptions, that is to say, instances where the more abstract category did not exist historically before a more concrete category;

"It may be said that there are highly developed but historically unripe forms of society in which the highest economic forms are to be found, such as cooperation, advanced division of labor, etc., and yet there is no money in existence, e.g. Peru."

Exceptions of this kind do not yet directly refute Leontiev, who has been careful to write that the logical development is the reflection of the historical process but only in a form cleansed of accidents and phenomena which reveal themselves to be secondary. But against this conception Marx soon directs a far more fundamental objection.

He examines more closely his example of money, describes its role in primitive communities, in Greece and in Rome, and he concludes:

"Although the simple category may have existed historically before the more concrete one, it can attain its complete internal and external development only in complex forms of society."

Thus money, considered as a category which appears at a certain stage of abstraction in the analysis of capital, is in no way identical to money considered as a historical product of society in its evolution toward capitalism.

Mark then passes on to a new example, labor. It would seem, says he, that labor as an abstraction could be found in all human societies:

"It might seem as though this amounted simply to finding abstract expression for the simplest and most primitive relation into which men have been

mutually entering as producers from times of yore, no matter under what form of society. In one sense this is true. In another it is not.

And Marx undertakes to show in what measure the proposition "is not true";

"Indifference as to the particular kind of labor implies the existence of a highly developed aggregate of different species of concrete labor, none of which is any longer the predominant one. So do the most general abstractions commonly arise only where there is the highest concrete development."

Then he continues:

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"This state of affairs has found its highest development in the most modern of bourgeois societies, the United States. It is only here that the abstraction of the category "labor", "labor in general", labor sans phrase, the starting point of modern political economy, becomes realized in practice."

And Marx concludes from this example:

Thus, the simplest abstraction which modern political economy sets up as its starting point, and which expresses a relation dating back to antiquity and prevalent under all forms of society, appears in this abstraction truly realized only as a category of the most modern society.

Leontiev's article in the Bolshaia Sovietskaia Entsiclopedia, presenting Capital as a simple historical exposition cleansed of accidents, would turn Marx into an evolutionist a la Spencer, which he was far from being. If we follow the text which we have already quoted profusely, we find very soon that, far from looking for an explanation in what is historically anterior, Marx arrives at the opposite proposition:

"The bourgeois society is the most highly developed and most highly differentiated historical organization of production. The categories which serve as the expression of its conditions and the comprehension of its own organization enable it at the same time to gain an insight into the organization and the conditions of production which had prevailed under all the past forms of society, on the ruins and constituent elements of which it has arisen."

And Marx concludes with a formula which would be an absolute paradox for a vulgar evolutionist;

"The anatomy of the human being is the key to the anatomy of the ape. The intimations of a higher animal in lower ones can be understood only if the animal of the higher order is already known."

Often fully-unfolded forms of developed capitalist society aid us in understanding previous forms. Marx gives us the example of rent;

For instance, nothing seems more natural than to start with rent, with landed property, since it is bound up with land, the source of all production and all existence, and with the first form of production in all more or less settled commodities, viz. agriculture. But nothing would be more erroneous. Under all forms of society there is a certain production which predominates over all the rest and whose condition therefore determines the rank and influence of all the rest.

Therefore, the relation of the different categories in the exposition is not determined by the order of their historical appearance, but by the structure of the given society under study, taken in its full bloom. Rent and landed property do not appear until the very end of the work of Marx, in the sixth part of the third book, although they are historically prior to capital.

Another example, which Marx does not cite but which is also very clear, is that of commercial capital and usurer capital, which Marx calls the "antediluvian forms", i.e. historically primitive forms, of capital; yet in his exposition they do not all appear in the beginning of the first book, but rather in the fourth part of the third book.

The conclusion flowing from this examination of the character of economic categories is given by Marx in unambiguous terms:

"It would thus be impractical and wrong to arrange the economic categories in the order in which they were the determining factors in the course of history. Their order of sequence is rather determined by the relation which they bear to one another in modern bourgeois society, and which is the exact opposite of what seems to be their natural order or the order of their historical development."

This is at the opposite pole from Leontiev who stated that the development of the economic categories "is nothing but the reflection" of the historical process. It is important to heavily underline Marx's thought on this point, because Leontiev is not the only one who commits this error. The commentators and vulgarizers of Marx in general have exaggerated the historical character of Marx's categories. To quote just one, Kautsky declares in an introduction to the German edition of his Economic Doctrines of Karl Marx that "Capital is essentially a historical work."

The error comes from the fact that the economic categories of Marx are indeed historical, but only in a certain sense. They are so in the sense that they have been derived from a concrete historical reality, capitalist society, which has not always existed

and will pass away. Marx, however, demonstrates the historical character of this society, that is to say the instability of the capitalist system, not merely by expounding its history, but by analyzing its internal relations (accumulation, rate of profit, crises, etc.) in the epoch of its full bloom. We must add, moreover, that the error of the vulgarizers is made easier by the fact that, as we have seen, the development from the abstract to the concrete sometimes follows, to a certain degree, the historical development. Where there is a divergence, however, we have also seen that Marx never hesitates to follow the logical development, even though it be contrary to the historical development, as in the case of rent, of commercial capital, usurer capital, etc.

The abstract categories do not represent, at least do not necessarily represent historically prior forms, but certain relations of fully developed capitalist society, considered in its most general, abstract aspect. The movement from the abstract to the concrete, which runs through Capital therefore represents a movement of the mind to grasp a complex reality by starting from the most general, most simple and most abstract relations, to come, by successive steps, to the particular, to the complex, to the concrete.

Shall we then characterize Marx's categories as logical? To this question we must give the answer that Marx gave concerning their historical character: "It depends." The categories are logical in this sense, that they are the result of a certain method of abstraction in face of a complex reality. But they are not logical in the sense that they would be determined by a system of logic prior and external to the economic study. In a quotation we cited at the beginning of this article, Lenin notes the relation of Marx's Capital to the Logic of Hegel. The analogy between the two works, or rather the affiliation of the first to the second, is incontestable and merits a close examination which we cannot undertake here. Yet this affiliation in no way signifies that Marx transposed the logical categories of Hegel into the economic domain. Nor can there be established a reciprocal correspondence between the two series of categories. Now and then the attempt is made to discover in Capital a mosaic of triads, each linked with the other. All attempted interpretations of this kind are doomed to failure and Marx himself had occasion to denounce them in advance. Commenting on a book by Lassalle, Die Philosophie Herakleitos! des Dunklen von Ephesos, in which the author, a confused Hegelian, had undertaken to translate the logic of Hegel into economic terms, Marx writes in a letter to Engels on February 1, 1858;

> "He (Lassalle) will learn to his cost that to bring a science by criticism to the point where it can be dialectically presented, is an altogether different thing from applying an abstract, ready-made system of logic on the basis of mere inklings of such a system."

The conclusion of this discussion on the character of his economic categories is provided by Marx himself in very clear terms

in the 1857 preface:

What we are interested in is not the place which economic relations occupy in the historical succession of different forms of society. Still less are we interested in the order of their succession in idea! (Proudhon), which is but a hazy conception of the course of history. We are interested in their organized connection within modern bourgeois society.

Let us note here that the character of the economic categories of Marx is analogous to that of scientific concepts, for example those in physics. The movement from the abstract to the concrete is to be found in every somewhat developed science, and the sense in which scientific concepts are (and are not) historical and logical, is analogous to the sense in which Marx's economic categories are (and are not) historical and logical. But the difference in subject matter and in the historical development of the various sciences entail certain differences in their specific methods.

The Field of Dialectic

One difference between a social science like economics and a natural science like physics is in the role of experience. In both, of course, experience is the supreme judge. But the manner of appealing to this judge can be quite different. In a study of society the control of experience is far less immediate and strict than in the laboratory of physics. The facts involved are most of the time known to everybody. But the disagreement starts when we proceed to arrange them, to distinguish the particular from the general. The problem immediately becomes a question of method.

True, analogous problems present themselves even in a natural science like physics, but the complexities of social facts produce a difference in degree which here is decisive. In society, in view of the complexity of the facts, experience is far from being so immediately crucial and the investigator cannot advance one step without arming himself with a precise method, especially a very clear notion of the relation of abstract and concrete. As Marx noted in the preface to the first book of Capital:

"In the analysis of the economic forms neither microscopes nor chemical reagents are of use. The force of abstraction must replace both."

We must add that Marx in the domain of economy has accomplished a work of research and systematization of such scope that anything analogous has rarely been accomplished in physics by one single man.

If, therefore, the methodological structure of <u>Capital</u> is similar to that of any somewhat systematized science — to proceed by analysis in order to arrive at certain abstract categories, then start from these categories to return to the concrete, which this time is not longer chaotic but richly determined — then the particular conditions of the social sciences imposed on Marx a far

greater consciousness of his method than was needed by the investigators in the natural sciences where the progress of knowledge occurs, in a way, more automatically.

Last but not least, the resistance that a society divided into classes offers to progress of knowledge is far greater in a social science like economics than in a natural science like physics. This resistance only increases the importance of a conscious method for the investigator.

We must now touch on another difference between a social science like economics and a natural science like physics. Physics introduces magnitudes and consequently can make use of mathematics, the abstract science of quantity. True, all through Capital, we find numerous mathematical developments. Marx even intended, as is revealed in his letter to Engels of May 31, 1873, "to determine the principal laws of crises mathematically." * The role of mathematics nevertheless remains secondary in Capital, almost non-existent in the beginning of the work. Mathematics is a very powerful tool, but its use demands certain conditions. To what degree a social science like economics can be mathematized is as yet unknown. In any event, it is a fact that Marx, due to the condition of economics in his time, could certainly not use mathematics to the extent that it is used in physics.

Marx has used a method, which he calls "my dialectical method" and of which he speaks many times, in prefaces and letters, as his method of "presentation", of "development", of "exposition" ("Darstellung"). These expressions can only be fully understood if we keep clearly in mind the movement from the abstract to the concrete, which runs all through Capital. This movement is in no way the movement of the historical process, or its "reflection", as we have seen. It is the passage from extremely general and simple concepts to more and more concrete and specific ones. In the light of the impossibility of systematically employing mathematics, as I have indicated, the dialectical method constitutes the means of locomotion for realizing this passage.

An examination of <u>Capital</u> confirms this point of view. Its first book, and especially its beginning -- i.e. the treatment of the most abstract categories -- has the most markedly dialectical character. Mark himself declared in the postscript to the second edition of the book:

"I frankly proclaimed myself a disciple of that

It would seem that the mathematical instrument necessary for such an enterprise did not yet exist in Marx's time. The curve of economic activity, which starts out by rising slowly and then more and more rapidly, after which it sinks abruptly, is clearly not a curve of sinusoidal oscillations. From Capital a periodic curve of economic activity could, I think, be deduced theoretically, and would be a curve of oscillations of relaxation -- oscillations whose general mathematical form had not been studied until recently.

great thinker (Hegel) and even toyed with the use in Capital of Hegelian terminology in the chapter on the theory of value.

The chapter on the theory of value is the first in the book. Lenin too, in the quotation we gave at the beginning of this article, noted that the logic of Hegel is particularly important for an understanding of the first chapter of <u>Capital</u> and thus seems to recognize the especially dialectical character of this chapter. It is there and in the immediately following chapters that we find the purest dialectical developments, for instance, on the process of exchange, the passage from commodity to money, etc.

In the second and third book the dialectic is much less apparent and the quantitative developments become more and more frequent. Quantities like the rate of profit, the rate of accumulation, etc., etc., make their appearance. The development often becomes mathematized, for example, the discussion of the schemata of reproduction in the second book; in the third book the exposition repeatedly becomes the discussion of the relative importance of the factors of a mathematical function, etc. Thus dialectic appears -- at least in Capital, for we have deliberately left Marx's other writings aside -- as a method to handle ideas on the most abstract level of exposition, to pass from a concept to a less abstract one. We notice a certain complementarity between dialectic and mathematics. paralleling the opposition between quality and quantity. Dialectic is essentially a qualitative method and deals primarily with the definition of the concepts from which the return to the concrete starts. Then the development becomes more and more quantitative and mathematics can be used.

The object of this article was to place the dialectic, to circumscribe its field, and not to examine all its aspects. We have underlined the importance of the movement from the abstract to the concrete for the understanding of the economic work of Marx and we have shown that this movement represents not an historical evolution but the successive stages in the knowledge of an extremely complex whole; finally we have placed the dialectic in the most abstract part of this development, as the method which enabled Marx to deal with the most abstract concepts and thus to find his way to more concrete levels.

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