

The dialectics of the Abstract & the Concrete in Marx's Capital

Chapter 3 – Ascent from the Abstract to the Concrete

On the Formulation of the Question

In analysing the method of political economy, Marx advances a number of propositions of enormous philosophical import. These include the well-known thesis concerning ascent from the abstract to the concrete as the only possible and correct procedure for the solution by thought of the specific task of theoretical cognition of the world. The concrete, in Marx's conception, is unity in diversity, 'It appears therefore in reasoning as a summing up, a result, and not as the starting point, although it is the real point of origin, and thus also the point of origin of perception and imagination ...

'The totality as a conceptual entity seen by the intellect is a product of the thinking intellect which assimilates the world in the only way open to it, a way which differs from the artistic, religious and practical spiritual assimilation of the world.' [[Contribution to the Critique of Political Economy](#)]

The method of ascending from the abstract to the concrete, where 'abstract definitions lead to the reproduction of the concrete by way of thinking,' [[Grundrisse](#)] was defined by Marx as a correct method from the scientific standpoint. This method is, according to Marx, that specific 'mode in which thinking assimilates the concrete, reproducing it as the spiritually concrete'. [[Grundrisse](#)]

It is only this method that permits the theoretician to solve his special task, the task of processing the data of contemplation and notion into concepts.

In view of particular significance of these propositions for comprehending the method of Capital one should dwell on them in greater detail, the more so that they have frequently become objects of falsification of Marx's economic and philosophical ideas by bourgeois philosophers and by revisionists.

Let us recall first of all that by the concrete Marx does not at all mean the image of living contemplation, the sensual form of reflection of the object in consciousness, and neither does he interpret the abstract as 'mental distillation' only. If one reads Marx's above propositions from the standpoint of these notions of the abstract and the concrete, characteristic of narrow empiricism and neo-Kantianism, one would arrive at an absurdity incompatible with the theory of reflection. One would have the illusion that Marx recommends to ascend from a mental abstraction as something immediately given to the image of living contemplation as something secondary and derivative in regard of thought.

In reading Marx, one should therefore take care to free oneself from the notions uncritically borrowed from pro-Marxian and neo-Kantian treatises on epistemology.

From the standpoint of Marx's definitions of the abstract and the concrete, the above propositions characterise the dialectics of the transition from living contemplation to abstract thought, from contemplation and notion to concept, from the concrete as it is given in contemplation and notion to the concrete as it appears in thought.

Marx is first and foremost a materialist. In other words, he proceeds from the view that all those abstractions through which and by the synthesis of which a theoretician mentally reconstructs the world, are conceptual replicas of the separate moments of the objective reality itself revealed by analysis. In other words, it is assumed as something quite obvious that each abstract definition taken separately is a product of generalisation and analysis of the immediate data of contemplation. In this sense, and in this sense only, it is product of the reduction of the concrete in reality to its abstract abridged expression in consciousness.

Marx says that all the definitions used in (pre-Marxian) political economy were products of movement away from the concrete, given in the notion, to increasingly meagre abstractions. In describing the historical path traversed by political economy, Marx therefore characterises it as a path beginning with the real and concrete and leading first to 'meagre abstractions' and only after that, from the 'meagre abstractions' to a system, a synthesis, a combination of abstractions in theory.

The reduction of the concrete fullness of reality to its abridged (abstract) expression in consciousness is, self-obviously, a prerequisite and a condition without which no special theoretical research can either proceed or even begin. Moreover, this reduction is not only a prerequisite or historical condition of theoretical assimilation of the world but also an organic element of the process itself of constructing a system of scientific definitions, that is, of the mind's synthesising activity.

The definitions which the theoretician organises into a system are not, of course, borrowed ready-made from the previous phase (or stage) of cognition. His task is by no means restricted to a purely formal synthesis of ready-made 'meagre abstractions' according to the familiar rules for such synthesis. In constructing a system out of ready-made, earlier obtained abstractions, a theoretician always critically analyses them, checks them with facts and thus goes once again through the ascent from the concrete in reality to the abstract in thought. This ascent is thus not only and not so much a prerequisite of constructing a system of science as an organic element of the construction itself.

Separate abstract definitions, whose synthesis yields the 'concrete in thought', are formed in the course of ascent from the abstract to the concrete itself. Thus the theoretical process leading to the attainment of concrete knowledge is always, in each separate link as well as in the whole, also a process of reduction of the concrete to the abstract.

In other words, one can say that the ascent from the concrete to the abstract and the ascent from the abstract to the concrete, are two mutually assuming forms of theoretical assimilation of the world, of abstract thinking. Each of them is realised only through its opposite and in unity with it. The ascent from the abstract to the concrete without its opposite, without the ascent from the concrete to the abstract would become a purely scholastic linking up of ready-made meagre abstractions borrowed uncritically. Contrariwise, a reduction of the concrete to the abstract performed at random, without a clearly realised general idea of research, without a hypothesis, cannot and will not yield a theory either. It will only yield a disjoint heap of meagre abstractions.

And still why did Marx, taking all this into account, define the ascent from the

abstract to the concrete as the only possible and scientifically correct mode of theoretical assimilation (reflection) of the world? The reason is that dialectics, as distinct from eclecticism, does not reason on the 'on-the-one-hand, on-the-other-hand' principle but always points out the determining aspect, that element in the unity of opposites which is in the given instance the leading or determining one. That is an axiom of dialectics.

The specific and characteristic feature of theoretical assimilation (as distinct from mere empirical familiarity with facts) is that each separate abstraction is formed within the general movement of research towards a fuller and more comprehensive, that is, concrete, conception of the object. Each separate generalisation (according to the formula 'from the concrete to the abstract') has a meaning only on condition that it is a step on the way to concrete comprehension of reality, along the way of ascending from an abstract reflection of the object in thought to its increasingly concrete expression in the concept.

If a separate act of generalisation is not simultaneously a step forward in the development of theory, a step along the way from the already available knowledge to new and fuller knowledge, if it does not push ahead theory as a whole enriching it with a new general definition but merely repeats what was known already, it proves to be simply meaningless in respect of the development of theory.

In other words, the concrete (that is, the continual movement to increasingly more concrete theoretical comprehension) emerges here as a specific goal of theoretical thought. As such goal, the concrete determines, as a law, the theoretician's mode of action (mental action are meant here, of course) in each particular case, in each separate generalisation.

The abstract from this standpoint proves to be merely a means of the theoretical process rather than its goal, while each separate act of generalisation (that is, of the reduction of the concrete to the abstract) emerges as a subordinate, disappearing moment of the overall movement. In the language 'a disappearing moment' is one that has no significance by itself, divorced from the other moments - it is only significant in connection with these, in living interaction with them, in transition.

That is the whole point. Precisely because Marx was a dialectician, he did not restrict himself to a mere statement of the fact that in theoretical thought both movement from the concrete to the abstract and from the abstract to the concrete take place, but singled out first of all that form of the movement of thought which in the given instance proves to be the principal and dominant one, determining the weight and significance of the other, the opposite one. Such is the form of ascent from the abstract to the concrete in special theoretical studies. It is therefore a specific form of theoretical thought.

Of course, that does not mean at all that the other, opposite form has no place in thinking. It merely means that the reduction of the concrete fullness of facts to abstract expression in consciousness is neither a specific nor, still less, determining form of theoretical reflection of the world.

Man eats to live-he does not live to eat. But only a madman will conclude that man must do without food at all; it would be just as stupid to insist that this aphorism depreciates the role of food.

The same is true of the present instance. It is only a person quite ignorant in scientific matters that can take the absorption of the sensually concrete fullness of facts in abstraction for the principal and determining form of the theoretician's mental activity. In science this is only a means necessary for carrying out a more serious task, the task which is specific for the theoretical assimilation of the world, constituting the genuine goal of the theoretician's activity. Reproduction of the concrete in thought is the goal which determines the weight and significance of each separate act of generalisation.

The concrete in thinking is not, of course, the ultimate goal, an end in itself. Theory as a whole is also only 'a disappearing moment' in the real, practical objective exchange of matter between man and nature. From theory, transition is made to practice, and this transition can also be described as a transition from the abstract to the concrete. Practice no longer has a higher goal outside itself, it posits its own goals and appears as an end in itself. That is why each separate step and each generalisation in the course of working out a theory is constantly commensurated with the data of practice, tested by them, correlated with practice as the highest goal of theoretical activity. That is why Lenin, in speaking of the method of Capital, points out one of its most characteristic features: 'Testing by facts or by practice respectively, is to be found here in each step of the analysis.' [Lenin's [Summary of Dialectics](#)]

Constant correlation of 'each step' in the analysis with the direction of the path of scientific research as a whole and ultimately with practice is linked with the very essence of Marx's conception of the specificity of the theoretical assimilation of the world. Each separate step in the analysis, each individual act of reduction of the concrete to the abstract, must from the beginning be oriented at the whole which 'looms in the notion', in living contemplation, the reflection of which is the highest goal of theoretical work (of course only as long as we deal with theoretical work, as long as man stands to the world only in a theoretical relation). Therein lies the profoundly dialectical meaning of Marx's proposition that it is exactly ascent from the abstract to the concrete that constitutes a trait specifically inherent in the theoretical process and is the only possible and therefore the only scientifically correct mode of developing scientific definitions, a mode of transforming the data of living contemplation and notion into concepts.

That means that all genuinely scientific (not absurd or vacuous) abstract definitions do not emerge in the human head as a result of mindless random reduction of the concrete to the abstract-they appear solely through consistent advancement of cognition in the overall law-governed development of science, through concretisation of the available knowledge and its critical transformation.

It would be wrong to take the view that each science has to go through a stage of one-sided analytical attitude to the world, a stage of purely inductive reduction of the concrete to the abstract, and that only later, when this work is fully accomplished, can it proceed to link up the abstractions thus obtained in a system, to ascend from the abstract to the concrete.

When Marx refers to the history of bourgeois political economy, to the fact that at its origin it really followed the one-sided analytical path, only later to adopt the scientifically correct path, he does not of course mean that every modern science should follow this example, that is, first go through a purely analytical stage and later proceed to ascend from the abstract to the concrete.

The one-sided analytical method, which is indeed characteristic of the first steps

of bourgeois political economy, is by no means a virtue that could be recommended as a model. It was rather an expression of the historical limitations of bourgeois political economy, in particular conditioned by the absence of a well-developed dialectical method of thought. Dialectical logic does not at all recommend modern science first to take up pure analysis, pure reduction of the concrete to the abstract, and later to proceed to pure synthesis, pure ascent from the abstract to the concrete. Concrete knowledge is not to be obtained on this path, and if it is, that can only be due to the same kind of wanderings which the development of bourgeois political economy was subject to before Marx.

The example cited by Marx is rather an argument in favour of the thesis that science in these days should from the very beginning take the road that is scientifically correct rather than repeat the wanderings of the 17th century, it must from the very outset use the dialectical method of ascent from the abstract to the concrete in which analysis and synthesis are closely interwoven, rather than the one-sided analytical method. This is an argument in favour of science working out its abstract definitions, from the very outset, in such a way that each of them should at the same time be a step on the road of advancement towards concrete truth, towards cognition of reality as a unified, coherent, developing whole. Bourgeois political economy took a different road at the beginning, but that is no reason to take it for a model.

Science, if it is genuine science rather than a conglomeration of facts and various data, should from the very beginning reflect its object and develop its definitions in a way that Marx characterised as the only possible and correct one in science, and not leave this method for later use in literary exposition of the already obtained results, as neo-Kantian revisionists like Cunow, Renner and others advised to do. Later we shall discuss in detail these attempts to distort the essence of Marx's thought about the method of ascent from the abstract to the concrete, to present this method only as a literary style of expounding available results allegedly obtained in a purely inductive manner.

Of course, the method of ascent from the abstract to the concrete is seen most clearly in those works of Marx which expound his theory systematically: *Zur Kritik der politischen Okonomie* (A Contribution to the Critique of Political Economy), *Grundrisse der Kritik der politischen Okonomie* (Outline of a Critique of Political Economy), and in *Capital*. That does not mean at all, however, that the exposition is here fundamentally different in its method from the investigation, or that the method applied by Marx in the investigation is directly opposed to the manner of exposition of the results of the investigation.

If that were so, the analysis of the 'logic of Capital' would contribute nothing to an understanding of the method of research, the method of processing the data of contemplation and notion applied by Marx. Capital would in this case be only instructive as a model of literary exposition of results previously obtained and not as an illustration of the method of obtaining them. In this case Marx's method of investigation should not be reconstructed from an analysis of Capital but rather from an analysis of the rough notes, excerpts, fragments, and arguments that came into Marx's head in his original study of the economic facts. In that case one would have to agree with the insistence of the author of an anti-Marxist pamphlet, theologian Fetscher, who wrote this: 'The method which Marx followed in Capital is essentially the same as the one applied by bourgeois scholars. Dialectics was used by Marx, as he says himself in the [Afterword to the second edition of Capital](#), only as a "method of presentation", a method which indeed has a number of advantages and which we shall not consider here in greater detail', 5

as it has no bearing on the problem of the method of cognition.

Fetscher offers here a rather free interpretation of Marx's well-known statement that the presentation of a theory in its developed form cannot but be different from the search that resulted in this theory; but the formal difference between the two, referred to by Marx, does not affect the essence of the method of thinking, of the mode of processing the data of contemplation and notion into concepts. This mode of analysis remained the same, namely, dialectical, both in the preliminary processing of data and in their final elaboration, although, of course, it was perfected as the work went on which culminated in the creation of Capital.

The main advantage of the mode of presentation, which is by no means of literary stylistic character, consists in that the author of Capital does not dogmatically and didactically present ready-made results obtained in some mysterious manner but rather goes through the entire process of obtaining these results, the entire investigation leading to them, before the reader's eyes. 'The reader who really wishes to follow me will have to decide to advance from the particular to the general,' warned Marx already in his [Preface to A Contribution to the Critique of Political Economy](#). The method of presentation loads the reader from a comprehension of certain particulars, from the abstract, to the increasingly more concrete, developed, general, comprehensive view of economic reality, to the general as the result of combining the particulars.

Of course, the process of investigation is not reproduced in all the details and deviations of more than twenty-five years of research but only in those principal and decisive features which, as the study itself showed, really advanced thought along the path of concrete understanding. In the final elaboration of the facts for publication Marx no longer repeated those numerous deviations from the principal theme of investigation that are inevitable in the work of any scholar. In the course of actual investigation facts are often considered that are not directly relevant: it is only their analysis that can show whether they are relevant or not. Besides, the theoretician has to recur, as often as not, to the consideration of facts that once seemed to be exhaustively analysed. As a result, research does not proceed smoothly forward but moves ahead in rather complicated manner with frequent reversions and deviations.

These moments are not, of course, reproduced in the final presentation. Due to this, the process of investigation appears in its genuine form free from accidental elements and deviations. Here it is straightened out, as it were, assuming the character of continuous motion forward, which is in agreement with the nature and motions of the facts themselves. Here thought does not proceed from the analysis of one fact to the analysis of the next one before it has really exhausted this fact; that is why one does not have to recur time and again to one and the same subject in order to tackle what has been left unfinished.

Thus the method of presentation of material in Capital is nothing but the 'corrected' method of its investigation, the corrections not being arbitrary, but in complete accordance with the requirements and laws dictated by the investigation itself. In other words, the method of presentation is in this case the method of investigation freed from anything in the nature of accessories and any confusing elements - a method of investigation strictly conforming to the objective, logical laws of study. That is a method of investigation in pure form, in a systematic form unobscured by deviations and chance elements.

As for the differences of form, of which Marx speaks in the [Afterword to the second edition of Capital](#), they have to do with quite different circumstances, in particular, the fact that Marx personally became familiar with the different circles of the capitalist hell in a sequence that is different from the one that corresponds to the law of their own development and is presented in Capital.

The method of ascent from the abstract to the concrete does not correspond to the order in which certain aspects of the object under study for some reason or other came into the field of vision of individual theoreticians or the science as a whole. It is oriented exclusively at the order which corresponds to the objective interrelations of various moments within the concreteness under study. This genuine sequence, it goes without saying, is not realised all at once. A justification of the method of ascent from the abstract to the concrete must not be looked for in the scientific careers of theoreticians or even the historical development of science as a whole. Science as a whole also arrives at its genuine starting point through long and arduous search.

Marx, for instance, came to the analysis and comprehension of economic relations from the study of legal and political relations among men. The sphere of law and politics proved for him the starting point of the study of the structure of the social organism. In the presentation of the theory of historical materialism Marx's requirement is to proceed from an understanding of economic, material relations to an understanding of law and politics.

Theoreticians of the Fettscher type might insist, on these grounds, that Marx's thesis according to which the starting point for an understanding of all social phenomena must be economy rather than law or politics, belongs merely to the peculiarities of the literary manner of presentation of Marx's theory, while in the investigation itself Marx and Marxists did the same as any bourgeois scientist.

The point is, however, that although the sphere of law and politics was studied by Marx before he took up economic inquiry, he understood this sphere correctly, from the scientific (materialist) standpoint, only after he had analysed economy, be it in very general outline.

The same is true of Marx's view of political economy. Marx studied the laws of movement of money, profit, and rent much earlier than he succeeded in realising the genuine, dual nature of commodity and of labour producing commodities. However, until he understood the real nature of value, his conception of money and rent was incorrect. In *The Poverty of Philosophy* he still shared the illusions of the Ricardian theory of money and rent. Only a clear conception of the nature of value attained in the 1850s showed both money and rent in the true light. Before that, money could not be understood in principle.

In the early 1850s Marx spent much time trying to understand the confusion and conflicts involved in the circulation of money in times of crisis and 'prosperity'. It is these attempts that led him to the conclusion that the laws of the circulation of money could not be understood unless one worked out in the greatest detail the concept of value. Having worked out the value concept, he saw that he had shared a number of Ricardo's illusions.

The method of ascent from the abstract to the concrete as a method of inquiry into facts cannot therefore be justified by references to the order in which the study of data proceeded. It expresses the sequence in which the objectively correct conception corresponding to the object takes shape in the theoretician's

mind, rather than the order in which certain aspects of reality for some reason or other draw the theoretician's attention and thus enter the field of science.

The method of ascent from the abstract to the concrete expresses the internal law of the development of scientific understanding which in the course of historical advancement paves its way rough a mass of accidental moments, deviations, often in a roundabout way unbeknown to the theoreticians themselves. This law is therefore difficult to discover on the surface of scientific development (that is, in the consciousness of theoreticians themselves). In the consciousness of theoreticians this law may not appear at all for a long time or it may appear in a form that will make it unrecognisable. An individual representative of science, as Marx pointed out, often has quite an erroneous conception of what - he actually does and how he does it. In view of this, one must not judge a thinker by what he thinks of himself. It is much more important (and difficult) to establish the objective significance of his views and their role in the development of science as a whole.

For this reason, the genuine significance of the facts of a scientist's biography and the genuine order of development of scientific definitions cannot be revealed through a purely biographical inquiry. The actual progress of scientific knowledge (that is, systematic advances of thought to concrete truth) often significantly diverges from the ordinary chronological sequence. Lenin in his fragment [On the Question of Dialectics](#) pointed out that chronology with regard to persons is unnecessary in the analysis of the logic of the development of knowledge, that it does not always correspond to the actual order of stages by which thought conceives its subject-matter.

Taking all this into account, one can draw the conclusion that all the characteristic features of Marx's method of inquiry appear most clearly and distinctly in Capital and not in the rough notes, excerpts and arguments that came into his head as he was studying the economic facts.

That is where the genuine sequence of the development of scientific definitions is revealed, which, only gradually came to light in the course of preliminary study of the material and was not always clearly realised by Marx himself. A most characteristic trait of Marx was, at all times, a sober critical attitude to his own achievement: many times he resolutely corrected, 'post factum', the errors and omissions of the preliminary stage of inquiry. In general it is possible to distinguish, with objective rigorousness, between the kernels of objective truth and the form in which they originally appeared in consciousness only after the event: the rudiments of more advanced forms can only be correctly understood when these more advanced form are already known.

Thus, if one tried to reconstruct Marx's method of inquiry from the mass of rough notes and fragments from his archives rather than from Capital, that would only complicate matters. To understand them correctly, one would all the same have to analyse Capital first. Otherwise 'rudiments of more advanced forms' simply cannot be distinguished in them. Besides, it is hard to understand why this inquiry should prefer an early and preliminary form of expression to a later, more refined, and mature form of expression. That would only result in the earlier form of expression being taken for an ideal one, and its later form for a distorted variant. The formulations and the method of their development in Capital would indeed have to be attributed to the literary manner of presentation and its perfection rather than to the enlargement of the scope of thought, of perception and method of inquiry.

(This awkward trick is, by the way, assiduously practised by present-day revisionists, who insist that genuine Marxism should be looked for in the manuscripts of the young Marx rather than in his mature works. As a result, Capital is presented as a distorted conception of the so-called real humanism developed by Marx and Engels in 1843-1844).

That was why Lenin pointed out that in developing The Great Logic of Marxism one should first of all have in mind Capital, and that the method of presentation applied by Marx in Capital should serve as a model for a dialectical interpretation of reality and a model for the study and elaboration of dialectics in general. Proceeding from these preliminary considerations, one can undertake a more detailed study of the method of ascent from the abstract to the concrete as a scientifically correct method of forming scientific definitions, as a method of theoretical processing of the data of living contemplation and notion.

Let us recall once again in this connection that the data of living contemplation and notion are here taken to mean something different from what an individual personally contemplation and pictures in sensual images. This interpretation, characteristic of pre-Marxist philosophy and of the anthropological conception of the subject of cognition, is quite false and extremely narrow. The data of contemplation and notion were always interpreted by Marx as the entire mass of the socially accumulated empirical experiences, the entire colossal mass of empirical data available to the theoretician from books, reports, statistical tables, newspapers, and accounts. It stands to reason, however, that all these empirical data are stored in social memory in an abridged form, reduced to abstract expression. They are expressed in speech, in terminology, in figures, tables, and other abstract forms. The specific task of the theoretician who uses all this information about reality does not, of course, consist in lending this abstract expression still more abstract form. On the contrary, his work always begins with a critical analysis and revision of the abstractions of the empirical stage of cognition, with the critical overcoming of these abstractions, attaining progress through a critique of the one-sidedness and subjective character of these abstractions and revealing the illusions contained in them, from the standpoint of reality as a whole, in its concreteness. In this sense (and only in this sense) the transition from the empirical stage of cognition to the rational one also appears as a transition from the abstract to the concrete.

Of course, the ascent from the cognition of the simple commodity form to the comprehension of such well-developed forms of bourgeois wealth as interest also appears, from a certain standpoint, as the movement from the concrete to abstract forms of its manifestation on the surface of events. Interest, for instance, expresses in its impersonal quantitative language the most complex and profound processes of capitalist production. In interest, surplus-value assumes an extremely abstract form of manifestation. This abstract quantitative form is only explained from its concrete content. But this is also evidence of the fact that any abstract moment of reality finds a real explanation only in the concrete system of conditions which gave rise to it, and it can only be correctly understood through it. Thus interest isconcretely (scientifically) understood only in the final analysis, as final result, whereas on the surface of phenomena it appears as a very abstract form.

All of this must be taken into account.

In view of the fact that Marx formulated his ideas on the method of ascent from

the abstract to the concrete in direct polemics with its Hegelian interpretation, it will be appropriate to take a critical look at the latter. The materialist nature of Marx's method will stand out clearly and graphically in comparison with it.

Hegel's Conception of the Concrete

As we know Hegel was the first to understand the development of knowledge as a historical process subject to laws that do not depend on men's will and consciousness. He discovered the law of ascent from the abstract to the concrete as the law governing the entire course of development of knowledge.

This law is, first of all, shown to be a simple empirically stated fact – the fact of progressive development of the spiritual culture of mankind. Indubitably, man's spiritual culture, his spiritual world, are gradually becoming increasingly rich, complicated, varied, and in this sense, more concrete. Despite all its complexity, however, man's spiritual world remains an integral world governed by the same laws thus constituting a genuine unity in diversity.

Movement from the abstract to the concrete appears in Hegel first and foremost as the empirically indubitable natural form in which the construction of the 'kingdom of the spirit' is completed. At first this kingdom (the sphere of human culture) is naturally uncomplicated, poor in established forms, that is, extremely abstract, becoming in the course of time increasingly more complex, rich, and varied, that is, more concrete.

It is easy to see that there is as yet nothing dialectical or idealist in all this.

Idealism, and at the same time specifically Hegel's dialectics, begin later, when Hegel tackles the question of the motive forces of the development of the 'kingdom of the spirit', the sphere of consciousness. The specific feature of Hegelian philosophy is the fact that the idea of development is fully applied only to the phenomena of consciousness.

In his view, nature existing outside and independently from the spirit does not develop. It confronts consciousness as a picture frozen in time, identical from the very beginning and for all time to come. Consciousness realises its restless active nature through actively considering this motionless picture, this realm of things eternally standing in the same relations to one another. The activity of realisation as such also contains within itself the mainspring of its own development.

The spirit is the only concreteness, that is, the only developed and developing system of living interacting phenomena passing one into another. This latter trait is, in his view, entirely uncharacteristic of nature. For him, nature is abstract through and through, metaphysical in its very essence: all of nature's phenomena are side by side with one another, isolated from one another, lying outside one another. As Hegel puts it, nature falls within itself into its abstract moments, into separate things, objects, processes, existing side by side with one another and independently from one another. At best, genuine dialectics is only vaguely reflected or dimly looms in nature.

The idealist nature of Hegel's philosophy is here revealed in a very striking manner: he directly attributes the metaphysical limitations of contemporary natural science, the knowledge of nature, to nature itself as its eternal property.

Where contemporary natural science timidly began to realise the dialectics of the things themselves, he also sees 'rudiments' of real concreteness, of the living dialectical interaction of phenomena. Thus he sees an imperfect form of concreteness in organic life. Here he discovers living interaction linking up all parts of the animal organism in a unified system within which each separate member exists and has a meaning only through its interaction with others: outside this interaction it cannot in general exist. An amputated hand decomposes, ceases to be a hand even in external form and ultimately in name, too. It cannot exist separately in abstraction.

Here Hegel sees a weak resemblance of the concreteness which he regards as the exceptional property of the spiritual world. In the world of chemistry, in his view, internal interaction is even weaker, although there are rudiments of it here as well. Here oxygen, for instance, can and does exist side by side with hydrogen, even if they are not bound as elements of water. This relation is impossible in the organism: the hand cannot exist separately from the head, both hand and head exist only through their interconnection, only within this mutual connection and conditioning. A particle possessing only mechanical properties remains the same particle, which does not change in itself depending on the kind of mechanical bond with other particles of the same kind. Isolated or extracted from this bond, that is, in its abstracted form, it will still remain the same, it will not go bad or decay as the hand 'abstracted' from the body.

The Hegelian system of nature is built as a system of stages beginning with the abstract sphere of mechanism and ending with the relatively concrete sphere of organic life. The whole pyramid is crowned by the spirit, as the sphere whose entire meaning lies in concreteness, in the absolute interconnectedness of all its phenomena.

Wherein lies the falsity of this Hegelian construction?

First of all in his taking the historically limited conceptions of contemporary natural science, which did not, indeed, contain conscious dialectics, to be the absolute characteristics of nature itself.

As for the fact that nature as a whole is an actually developing integral system of forms of motion of matter mutually conditioning one another, that nature as a whole, including man, is the real, objective concreteness, this fact is mystified by Hegel in his system, in which the abstract, that is, the mechanism, is the manifestation of spiritual concreteness.

He credits no form of motion, apart from the motion of thinking reason, the sphere of concepts, with an immanent concreteness, that is, with real mutual conditioning of phenomena within a natural whole.

In the same way Hegel considers the sphere of the economic life of society. For him, that is the sphere of 'want and intellect', a sphere where single individuals isolated one from another interact, each of them connected with others only because he has to preserve himself as a single abstract individual, as a kind of social atom.

It is easy to see here as well that Hegel took the metaphysical limitations of contemporary political economy (he had a fair knowledge of the English theoreticians) for a metaphysical, abstractly intellectual character of the economic

sphere itself. The sphere of economic life, the sphere of civic society, is supremely governed by intellect, that is, in Hegelian terms, the abstractedly one-sided form of consciousness.

In this sphere, opposites remain unmediated, unreconciled, they clash with one another, repulse one another, remaining the same metaphysical opposites. Real development is therefore impossible here. One and the same relation, the eternal relation of need to means of gratifying it, is eternally reproduced here.

Therefore the only possible form of transition to some higher stage in which all abstract extremes of the economic sphere are resolved is the transition to legal reality. Law emerges as the highest concreteness which is manifested as broken down into its abstract elements in the sphere of economic life.

Here we see that Hegel's logic, his dialectical yet at the same time essentially idealist conception of the concrete and the abstract serves to justify that which exists. In natural science, Hegel's conception perpetuates the given level of knowledge of nature, and in sociology it supports the apologetic attitude both to the economic form of property and to the law that sanctions this property.

Hegel's attitude to political economy should be considered in greater detail. It is instructive in two respects: on the one hand, it is here, in the conception of concreteness, that the opposition between Hegel's idealist dialectics and Marx's materialist dialectics is seen most clearly, and on the other hand, it is seen just as clearly that idealist dialectics fully excuses the metaphysical nature of the thinking of the classics of bourgeois economy (Smith, Ricardo, and others) by negating the genuinely dialectical nature of the subject-matter of political economy itself, declaring it to be a sphere in which abstract intellectual definitions fully correspond to the character of the subject matter.

In other words, the idealism of Hegelian dialectics yields the same result which in Smith, Ricardo and Say is consequence of the metaphysical mode of inquiry.

What is the most striking feature of his approach? The fact that the sphere of economic life for him is not a concrete sphere, it is not a system of interaction of men and things which has developed historically and can be understood as a really concrete sphere.

For Hegel, economy is only one of the many manifestations of the 'concrete spirit', that is, an abstract manifestation of some higher nature of man. This higher nature, also manifested one-sidedly in the form of economic activity, is nothing but the goal-directedly acting will – the substance of law and economic life, politics and all the rest. The goal-directed (reasonable) will appears as a concrete substance which is manifested abstractly and one-sidedly in its products, in its modi – economy, law, politics, etc. As long as this is taken for a starting point, as long as goal-directed reasonable will (or simply reason, since will in Hegel is a form of the existence of reason in man) is presented as a universal concrete substance of all forms of social activity, he naturally regards economy only as something that may be interpreted as a manifestation of reasonable will, as one of its many revelations, as a one-sided (abstract) manifestation of reason and will of the social individual.

Therefore all definitions of economy, all categories of economic life (value, profit, wages, etc.) appear as abstract modi of reasonable will, as particular or specific forms of its social being. In economy, reason emerges in a form which does not

correspond to its universal nature but merely to a single one-sided abstract manifestation of it. Concrete universal will creates the form that is adequate to its nature only in law and the state. The state is, according to Hegel, the concrete reality of the universal will comprising in itself all the particular, specific, and therefore abstract forms of its manifestation, including economy, the sphere of needs, a 'system of needs'.

Within economy, the universal concrete substance of anything that is human – reasonable will – appears in an extremely one-sided and abstract form. The sphere of men's economic activity is not, therefore, a concrete system of interaction of men and things, emerging and developing irrespective of the will and consciousness of individuals. It cannot constitute the subject-matter of a special science and can only be considered in a system of universal definitions of reasonable will, i.e. within the philosophy of spirit, within the philosophy of state law. Here it appears as one of the specific spheres of the activity of reason, as an abstract form of revelation of reason acting in history.

It is not difficult to see the diametric opposition between the views of Marx and Hegel of economy, of the nature of its dialectical interconnection with all the other manifestations of social life, and of its role in the social whole.

On this point, Marx opposes Hegel as a materialist first and foremost. The most interesting feature here is, however, that it is materialism that enables him to develop a more profound view of the dialectics of the subject matter.

For Marx, the sphere of economic interaction of men is a fully concrete sphere of social life with its own specific immanent laws of motion. In other words, it appears to be relatively independent of all other forms of social activity of men and precisely for this reason constitutes the subject-matter of a special science. The system of economic interaction between men emerges as a historically arising and historically developed system, all aspects of which are mutually connected with one another through unity of origin (genetically).

It is important to stress that the system of economic relations is a system that is not only relatively but also absolutely independent of the will and consciousness of individuals, although the latter's will and consciousness do play a most active role in its formation. The very nature of this participation of conscious will in the formation of the system is determined by the system of economic relations itself incorporating men endowed with will and consciousness, rather than by the 'nature of the spirit', beforehand and from the outside. In other words, will and reason themselves appear here as modi of some other substance, as its abstract manifestations and products. All definitions of the will and consciousness of individuals involved in the development of the economic system are literally deduced from the nature of internal self-movement of the system as a whole, interpreted as products of the movement of this system.

Thus, from this point of view everything looks exactly the reverse as compared to the Hegelian construction: everything is right side up. It is materialism that acts as the principal cause and condition of the fact that dialectics is applied to the understanding of economy in a full measure and much more comprehensively than it is generally possible to do from the Hegelian positions.

For Hegel, the category of concreteness is fully applicable only then and there, when and where we deal with conscious will and its products, only in the sphere of the spirit and its products, its manifestations (Entäusserungen).

In Marx's view, this most important category of is fully applicable everywhere, in any sphere of natural and social being, independently of any spirit whatsoever, and on this basis, to the phenomena of life of the spirit itself, that is, to the development of any sphere of social consciousness, including reasoning, the sphere of logic.

According to the Hegelian construction and its idealist starting point, no form of movement in nature can be understood as a concrete form, as a historically emerging self-developing system of internally interacting phenomena. Any such sphere acquires some relation to concreteness only when it is involved in the spiritual process, when one succeeds in interpreting it as a product of the spirit, a modus of the spiritual substance. The attribute of concreteness proves to be an exclusive monopoly of the self-developing spirit, while nature in itself (including the material aspect of the human social being) has no concreteness at all in its existence. In the eyes of Hegel, interconnection is in general possible only as ideal interconnection, as posited by the spirit or concept.

The category of concreteness, one of the central categories of dialectics, is therefore emasculated in Hegel's system to such an extent that it is impossible to apply it to natural science or the materialist conception of society. In short, the category of concreteness and consequently dialectics as a whole, which is inconceivable without this category, turns out to be inapplicable to anything but the sphere of the spirit. To everything else it is only applicable insofar as these other things are interpreted purely idealistically, as a manifestation of the universal spirit, as a one-sided (abstract) manifestation of the concrete spirit, of the concrete fullness and richness of the absolute spirit, the absolute idea.

These idealist limitations of Hegel's conception of concreteness, the narrowness of this conception, are indissolubly linked with the notion that nature is something static, that development belongs in the sphere of spirit only.

Concreteness indeed is indissolubly linked with development, and dialectical development at that, with self-development through contradictions. The latter Hegel saw in consciousness and nowhere else. Hence the narrowness of his conception of concreteness, a conception which, narrow as it is, is later extended to the entire field of nature.

Connected with this is Hegel's interpretation of the method of ascent from the abstract to the concrete. According to Hegel, that means that the entire reality, including nature and history, is the ascent of the spirit to itself, a process that goes through a number of stages from the 'mechanism', as the sphere of purely abstract manifestation of spiritualness, to the concrete human spirit. The ascent to itself is performed by the absolute, non-human, divine spirit. As such, this spirit is concrete in itself (an sich) even before it has revealed itself as 'mechanism', 'chemism', or 'organism' in a one-sided, abstracted manner.

That is why pure logic in Hegel's system precedes the philosophical consideration of nature, the latter being presented as a number of stages in which the concrete logical spirit reveals itself (sich entäussert) ever more fully and concretely in the form of space and time.

Ascent from the abstract to the concrete therefore coincides in Hegel with the generation of the world by the logical idea. Thus the law of spiritual reproduction of the world by thought is here directly represented as the

law of production of this world by the creative power of the concept.

This Hegelian illusion, as Marx showed, is simply based on a one-sided view of the philosopher and logician of reality. Hegel, as logician ex professo, is interested everywhere and first of all in 'the matter of logic rather than in the logic of the matter'. From this viewpoint, man is considered only as the subject of logical theoretical activity, and the world, only as object, only as material processed in this activity. This abstraction is, within certain limits, justified in logic, and as long as logic bears these limitations in mind, there is nothing idealistic in this abstraction.

Hegel's approach, however, eliminates these boundaries. He considers thought not only and not simply as one of man's abilities but also as the substantional source of all the other human abilities and kinds of activity, as their essential foundation. He treats the ability to change practically the external world, nature outside man, also as a manifestation of the mental principle in man. The actual process of practical transformation of the world appears in his philosophy as a consequence and manifestation of purely spiritual activity – in the final analysis, of purely logical activity, while the whole of mankind's material culture, as a product of thought, as a 'reified concept', as the 'other-being of the concept'.

In reality, the immediate basis of the development of thought is not nature as such but precisely the transformation of nature by social man, that is, practice. If this objective practical basis of thought is presented as the product of thought, as thought in its material realisation, one has to conclude that thinking has to do with objectivity only in appearance, while in actual fact, essentially, it deals only with itself, with its own 'other-being'. Logical definitions, that is, those definitions which the external objective world owes to thought, appear as the absolute and only genuine definitions of this world.

The point of view of logic becomes in Hegel absolute and all-embracing. If man's essence is believed to be in thought, and the essence of objective reality, in being a product of thought, an 'alienated concept', the law of development of thought appears as the law of development of the real world. That is why man and thinking in concepts prove to be complete synonyms in Hegel, just as the world and the world in concepts, the logically assimilated world. The law which in actual fact determines only the activity of the theoretically thinking head, is made the supreme law of the development and practice of man and of the objective world.

The actual subject-matter of Hegelian logic remains, despite his illusions, only the process of theoretical assimilation of the world, of mental reproduction of the world. Insofar as Hegel studies this world, he arrives at actual discoveries. Insofar as he takes this subject-matter for something different from what it actually is, for something greater – the formation of the world itself, he takes the path of erroneous comprehension of the world and of thought, too. He deprives himself of any possibility of understanding the process of thinking itself. As long as the actual conditions producing logical activity are presented as its own products and consequences the logical reasoning is suspended in mid air, or rather in the 'ether of pure thought'. The fact itself of the origin of thought and the laws of its development become quite inexplicable. It has no foundation in anything lying outside it. The foundation is believed to lie in itself. That is why Hegel is compelled in the end to interpret the logical ability, the ability to distinguish between and combine concepts, as a kind of divine gift, as activity of the self-developing concept. The law of ascent from the abstract to the concrete, discovered by Hegel in the movement of theoretical cognition also remains

inexplicable. The question as to why thought moves in one way rather than another, is answered by Hegelian philosophy in an essentially tautological way: such is the original and 'non-creatable' nature of thought. Tautology ceases to be a mere tautology here, becoming an idealist lie.

That is the point at which Marx levels his critique, showing that there is no explanation at all here, and the attempt to pass an absence of an explanation for an explanation is tantamount to idealism.

Although Marx discards the Hegelian conception of thought as the demiurge of the objective world, he does not, however, reject the law which Hegel established in the movement of theoretical knowledge although he gave it a false idealistic interpretation. The ascent from the abstract to the concrete, as Marx points out, is in actual fact nothing but a method for human thought to assimilate the concrete reality existing outside of and independently from it. As such, this method assumes, first, the existence of uninterpreted concreteness, second, the practical objective of the social man developing independently from and third, an immediate sensual form of reflection of objective concreteness in consciousness, that is, empirical consciousness, contemplation and notion formed quite independently from and prior to special theoretical activity. In other words, theoretical thought is posterior to the existence of the objective world and, moreover, to another form of consciousness formed directly in the course of sensual practical activity – the practical spiritual mode of assimilation of the world, as Marx referred to it.

Hegel presents all these premises of theoretical thought as its products and consequences. Marx puts all things in their proper places.

From the materialist viewpoint, as Marx showed, the method of ascent from the abstract to the concrete may and must be understood quite rationally, without any mysticism, as the only method by which thought can reproduce in the concept, in the movement of concepts the historically established concreteness existing outside of and independently from it, a world existing and developing outside of and independently from thought.

Marx's View of the Development of Scientific Cognition

As we know, the question of the relation of the abstract to the concrete in thought arose before Marx in the light of another, more general, problem: which scientific method should be used? [See *A Contribution to the Critique of Political Economy*]

This question assumes a view of scientific development as of a natural historical process. In general, Marx has always been decidedly opposed to the Leftist view of the development of spiritual culture which ignores all the previous attainments of human thought. In science, just as in all the other fields of spiritual culture, actual progress is always attained by further development of the values created by previous development, not by starting from scratch; by a theoretically developed head rather than by the [Lockean](#) tabula rasa.

It goes without saying that the assimilation of the results of previous theoretical development is not a matter of simply inheriting ready-made formulas but rather a complex process of their critical reinterpretation with reference to their

correspondence to facts, life, practice. A new theory, however revolutionary it might be in its content and significance, is always born in the course of critical reassessment of previous theoretical development. Lenin emphasised this point in his struggle against the Leftist views of the proponents of the so-called proletarian culture, who insisted that proletarian culture should be developed 'straight from life', – while all attainments of human thought should be discarded as – useless refuse.

The more revolutionary a theory, the greater its role of the genuine heir of previous theoretical development and the degree in which it assimilates the 'rational kernels' accumulated by science in previous development. That is a necessary law of the development of science, of theory. A new theoretical conception of the empirically given data always emerges in the course of revolutionary critical reassessment of the old theoretical interpretation of these facts.

'Settling critical accounts' with the earlier developed theories is not a matter of secondary importance, but a necessary element in the elaboration of theory itself, an element in the theoretical analysis of facts. It is not accidental that Capital has a subtitle, a second title: A Critical Analysis of Capitalist Production.

In Capital, the analysis of concepts developed in the entire preceding history of political economy organically coincides, in essence, with an analysis of the stubborn facts of economic reality. These two aspects of scientific-theoretical inquiry coincide or merge in one single process. Neither of them is conceivable or possible without the other. Just as critical analysis of concepts is impossible outside an analysis of facts, theoretical analysis of facts is impossible unless there are concepts through which they may be expressed. Marx's dialectical logic fully takes this circumstance into account.

That is why dialectics is the area where conscious, intentional coincidence of the inductive and the deductive moments takes place, the two constituting indissolubly linked, and, mutually assuming moments of inquiry.

Old logic was more or less consistent in interpreting induction as analysis of empirical facts, as formation of analytical definitions of the fact. That is why induction appeared the basic, if not the only, form of attaining new knowledge. Deduction was mostly considered as analysis of the concept, as the process of establishing distinctions within the concept. As such, it largely appeared to be the process and form of explication or exposition of already existing knowledge, knowledge that is already there in the head, rather than a form of obtaining new knowledge and new concepts. The point is that man (on condition, of course, that he really forms a conception of facts) never takes up analysis of facts with an empty consciousness but always with a consciousness developed by education. In other words, he always approaches facts having in mind certain concepts. Whether he wants it or not, he cannot actively grasp or conceive facts in general without that condition – he may, at best, only passively contemplate them.

In the simplest generalisation, induction is indissolubly linked with deduction: man expresses facts in a concept, and that means that a new analytical definition of facts is at the same time formed as a new, and more concrete, definition of that concept which serves as the basis for interpreting these facts. If that is not the case, an analytical definition of the fact is not formed at all.

Whether man wants it or not, each new inductive definition of the fact is formed

by him in the light of some ready-made concept which at some time learnt from society, in the light of some conceptual system or other. He who believes that he expresses facts 'without any bias whatsoever', without any 'preconceived ideas', is not actually free from them. On the contrary, he often proves to be slave to the most banal and absurd ideas.

Here as well as anywhere else freedom lies in conscious mastering of necessity rather than in trying to escape from it. A genuinely unprejudiced person does not express facts without any preconceived ideas' whatsoever, he does it with the aid of consciously assimilated correct concepts.

With regard to philosophical categories, this was demonstrated quite convincingly by Engels in his critique of empiricism: a natural scientist who prides himself on his freedom from any logical categories proves to be a captive of the most banal conceptions of them. By himself, he cannot form them out of facts – that would be equivalent to a claim to do something that can only be done by mankind in its development. He therefore in effect always borrows logical categories from philosophy. The only question is, from what philosophy he will borrow them: from a good-for-nothing fashionable system or one that is actually the peak of development, a system based on the study of the entire history of human thought and its attainments.

This is true, of course, not only of the concepts of philosophy: the same thing happens with the categories of any science. Man never begins reasoning 'from scratch', 'straight from the facts'. The great Russian scientist Ivan Pavlov said once that without an idea in the head you can't see facts. Mindless contemplation and induction without ideas are products of the imagination, just as 'pure thought'.

Empiricism assuming that it 'operates only with undeniable facts ... operates predominantly with traditional notions, with the largely obsolete products of thought of its predecessors'. [[Dialectics of Nature, Chapter 6](#)] That is why an empiricist easily confuses abstractions with reality, reality with abstractions, and takes subjective illusions for objective facts and objective facts and concepts expressing them, for abstractions and illusions. As a rule, he posits abstract truisms as definitions of facts.

It follows that 'empirical induction' itself takes the form of concretisation of notions and concepts that serve as the basis for considering facts, that is, the form of deduction or process of filling the original concepts with new and more detailed definitions obtained from facts through abstraction.

The old opposition of deduction and induction is rationally sublated in materialist dialectics. Deduction ceases to be a means of formal derivation of definitions contained a priori in the concept, becoming a means of actual development of knowledge of facts in their movement, in their internal interaction. This deduction organically includes an empirical moment: it proceeds through a rigorous analysis of empirical facts, that is, through induction. In this case, however, the names 'induction' and 'deduction' express only an external, formal resemblance between the method of materialist dialectics and the corresponding methods of ratiocinative, intellect-oriented logic. In actual fact, that is neither induction nor deduction but rather a third method including the other two as sublated moments. Here they are realised simultaneously, as mutually assuming opposites, resulting in a new and higher form of logical development precisely through their reciprocal action.

This higher form, an organic combination analysis of facts with analysis of concepts, is exactly the method of ascent from the abstract to the concrete of which Marx speaks. That is the only logical form of the development of knowledge which corresponds to the objective nature of the thing. The point is that no other method can reproduce the objective concreteness in thought as reality that emerged and developed historically. One cannot do it in any other way.

As such, the method of ascent from the abstract to the concrete is by no means merely a method for expounding available knowledge obtained in some other way, as Marx's teaching has often been presented by revisionists who distorted the method of Capital in the spirit of banal neo-Kantianism.

That is the way in which the method of ascent from the abstract to the concrete is interpreted by Rudolph Hilferding. Quoting the [Preface to Marx's economic MSS of 1857-58](#) ('On the first path the full idea will evaporate until it becomes an abstract definition; on the second, abstract definitions lead to reproduction of the concrete through thinking'), Hilferding makes this comment: 'It is clear from this already how false it is to equate deduction and induction as sources of knowledge of the same value. Rather, deduction is only a scientific method of presentation which, however, must be preceded in the spirit by induction if it should really arrive, in the final analysis, from the general to the presentation of the particulars Hilferding calls the method of ascent from the abstract to the concrete deduction and interprets it in an extremely one-sided manner, only with regard to its external resemblance to deduction as it is traditionally conceived, denying that it has any advantages as a method for the study of real facts and reducing it merely to a form of systematic presentation of available knowledge, which must in his view be obtained in some other way in advance, namely, the inductive way.

Karl Renner, the well-known Austrian Marxist, author of *Economy as a Whole and Socialisation* follows the same avenue of thought in the Preface to his work. He reduces the essence of the method of ascent from the abstract to the concrete applied in Capital, to the manner of presentation characteristic of German philosophers, which Marx, according to Renner, learnt from his contemporaries. Insofar as this manner of presentation has allegedly become quite alien to the modern reader, Renner believes it appropriate to replace it with quite a different one. 'I know no book grown out of such a great mass of empirical data as Marx's Capital, and only a few books whose method of presentation is as deductive and abstract.' Therefore Renner believes it expedient to present the content of Marx's theory in another manner, one which 'proceeds from the visual evidence of the facts of experience, arranges them in a certain order, and thus gradually advances to the abstract concept', that is, inductively. In this case, Renner believes, the method of presentation will correspond to the method of investigation, whereas in Capital the two are in contradiction.

As a result, Renner generalises, quite uncritically, the empirical phenomena of modern capitalism as they appear on the surface, passing off his generalisations for a theoretical expression of the essence of these phenomena. Following this path he discovers, for instance, that a worker buying shares thereby becomes owner of the social means of production, which results in automatic 'democratisation of capital' and 'socialisation' of social production, making revolution unnecessary. Thus Renner supplants Marx's method of studying phenomena by the method of apology, disguising it as a different manner of presentation.

The method of ascent from the abstract to the concrete can just as little be interpreted as a method of purely logical synthesis of available abstractions (previously obtained in a purely analytical manner) in a system. The notion that cognition involves at first 'pure' analysis producing numerous abstractions followed by just as 'pure' synthesis, is the same kind of invention in metaphysical epistemology as the idea of induction without deduction.

In substantiating this view, the development of science in the 17th and 18th centuries is often taken as an example, but the facts are often violated, unwittingly. Even if one should agree that characteristic of that time was indeed the analytical attitude towards facts (although synthesis, despite the illusions of theoreticians, was carried out here as well), one must not forget that that was not the initial stage in the scientific development of mankind and that the 'one-sided analysis' characteristic of that epoch assumed ancient Greek science as a prerequisite. And ancient Greek science, the real initial stage in the scientific development of Europe, is much more characterised by a generalised synthetic view of things. In referring to the history of metaphysics of the 17th and 18th centuries, one should bear in mind that it is not the first but rather the second great epoch in the development of thought. In that case, it is synthesis rather than analysis that emerges historically as the first stage in the processing of facts in thought.

The example referred to thus shows something diametrically opposed to what it was intended to show.

Analysis and synthesis are (and have always been) just as indissoluble internal opposites of the process of thinking as deduction and induction. If at certain epochs one was overestimated to the detriment of the other, this should not be raised to a law that thought should be subject to in the future, a logical law, a precept according to which each first pass through a purely analytical stage of development later to proceed, on this basis, to a synthetic one.

But that is exactly the conception on which the opinion is based that the method of ascent from the abstract to the concrete can be applied only then and there where the concrete has previously been 'distilled' into the abstract.

The method of ascent from the abstract to the concrete is first of all a method of analysis of real empirical facts. As such, it organically comprises in itself the reverse motion as its internally necessary opposite: each step on this path is exactly an act of ascent from the sensually given concreteness to its abstract, theoretical expression. That is why the ascent from the abstract to the concrete in thought is at the same time a continually renewed movement from the concrete in contemplation and notion to the concrete in the concept.

Abstract definitions of sensually given facts, that are synthesised on the path of ascent towards the concrete truth, are formed in the process of motion itself. They are by no means taken ready-made as products of the previous, allegedly purely analytical, stage of logical cognition.

If there is any sense in the assertion that ascent from the abstract to the concrete assumes a purely analytical reduction of the sensually empirical concreteness to abstract expression, as a special stage of logical development interior in time and essence, this meaning would appear to be that theoretical consideration of reality assumes the existence of a well-developed vocabulary, a spontaneously formed

terminology, and a system of abstract general conceptions. This 'purely analytical' stage in the reflection of objective reality in consciousness is only a prerequisite of logical theoretical activity rather than its first stage.

Thus we may sum up the above as follows: the method of ascent from the abstract to the concrete is a specific form of the activity of thought, of logical transformation of contemplation and notion into concepts. It is by no means an artificial procedure, a manner of presentation of already existing knowledge, or a formal method for combining available abstractions in a system.

This is first and foremost a natural law of the theoretical development of mankind established by philosophy and, in the second place, a consciously applied method of development of theory.

Each inductive generalisation taken separately (according to the formula 'from the concrete in contemplation to the abstract in thought) is in fact always realised in the context of the overall advance of cognition and is in this sense only a 'disappearing moment' in the general movement to concrete truth. Thereby ascent from the abstract to the concrete in thought and the dialectics of thought are indissolubly linked.

It is not for nothing that Lenin, having carefully copied a lengthy definition of the path from the abstract to the concrete given by Hegel in the last section of his greater Logic, describes it as follows:

'This extract is not at all bad as a kind of summing up of dialectics.'

The definition quoted by Lenin characterises reasoning as ascent from the abstract to the concrete:

'... Cognition rolls forward from content to content. This progress determines itself, first, in this manner, that it begins from simple determinatenesses and that each subsequent one is richer and more concrete. For the result contains its own beginning and the development of the beginning has made it the richer by a new determinateness. The universal is the foundation; the progress therefore must not be taken as a flow from Other to Other. In the absolute method the Notion preserves itself in its otherness, and the universal in its particularisation, in the Judgement and in reality; it raises to each next stage of determination the whole mass of its antecedent content, and by its dialectical progress not only loses nothing and leaves nothing behind, but carries with it all that it has acquired, enriching and concentrating itself upon itself. ...' [Lenin quoting: [Hegel's Logic](#), LCW. 38, p 231]

It is these sections of Hegel's Logic, where the idea is expounded of ascent from an abstract universal definiteness of the object to its increasingly more concrete embodiment, that Lenin singles out in his conspectus as the sections in which idealism is felt least of all and where the dialectical method is in the foreground.

'It is noteworthy that the whole chapter on the "Absolute Idea" scarcely says a word about God (hardly ever has a "divine" "notion" slipped out accidentally) and apart from that – this NB – it contains almost nothing that is specifically idealism, but has for its main subject the dialectical method. The sum-total, the last word and essence of Hegel's logic is the dialectical method – this is extremely noteworthy. And one thing more: in this most idealistic of Hegel's works there is the least idealism and the most materialism. "Contradictory", but a fact!'

[Lenin: [Conspectus of Hegel's Logic](#), Vol. 38, p 234]

In the dialectical view of the process of cognition, the method of ascent from the abstract to the concrete, from the universal theoretical definition of the object given in contemplation and notion, to its increasingly more concrete definitions, appears as a form of theoretically correct transformation of empirical facts in a concept. That is the view taken by Marx, in the Preface to his Contribution to the Critique of Political Economy and by Lenin in his notes on and evaluation of the last chapter of Hegel's Logic.

The Materialist Substantiation of the Method of Ascent from the Abstract to the Concrete in Marx

The method of ascent from the abstract to the concrete as a universal law to which scientific development is subject, was formulated by Hegel. But it became an actual method of development of concrete scientific knowledge only in the hands of Marx who gave it a materialist substantiation, whereas in Hegel, owing to the idealist interpretation and application of it, it appeared exclusively as a method for constructing a speculative science of sciences, an absolute system of the 'world as a whole'.

Marx not only substantiated this law on the general theoretical plane, he actually applied it to the development of a concrete science, political economy. Capital, created with the aid of this method, contains a concrete and extensive practical proof of the necessity of this method, its real materialist substantiation as the only method that agrees with the dialectics of the objective reality.

Analysis of Capital with reference to the method of inquiry applied in it should also show the concrete essence of the method of ascent from the abstract to the concrete.

It should be shown as the only method that can ensure the solution of the central task of scientific investigation as it is seen in materialist dialectics – the task of tracing the concrete reciprocal conditioning of phenomena creating, through their interaction, a system that emerged and developed historically, and still continues to develop new forms of its existence and internal interaction.

This task cannot be solved in any other way. Any other method does not correspond to the objective nature of the object reproduced with its aid in the spirit.

It would be quite erroneous to derive the need for the method of ascent from the abstract to the concrete merely from the fact that man's consciousness is incapable of grasping the object in its entire complexity so that it has to ascend, willy-nilly, from incomplete one-sided (abstract) notion of the object to ever more complete and comprehensive knowledge of it. This explanation would simply be quite inadequate. To be more precise, that is not an explanation but a reference to a well-known fact. It is self-obvious that consciousness is indeed such. But all properties and specific features of consciousness themselves require materialist explanation. Besides, such a reference to the nature of consciousness would explain nothing, generally speaking, about the specificity of the method of ascent from the abstract to the concrete as a method of scientific theoretical inquiry.

Familiarisation with an object, phenomenon, or system of phenomena also takes

the form of gradual and ordered assimilation of new details, of transition from a one-sided and meagre notion of an object to a comprehensive (though still empirical) notion of it. Accumulation of empirical information through which reality becomes familiar but not yet cognised, also proceeds as development from one-sided to comprehensive knowledge.

This interpretation would thus take into account only those abstract identical features which theoretical reproduction of concreteness in the concept has in common with simple empirical familiarisation with phenomena, and would express the specificity of neither.

The method of ascent from the abstract to the concrete is merely a method of reflection of concrete reality in thought rather than a method of creation of it by the power of thought, as it was presented by Hegel. That is precisely why it does not depend on thought at all where logical development of concepts by this method will begin and in what direction it will proceed. As Marx showed, it depends only on the relation in which the various aspects of the concrete whole stand to each other. The method of logical development must therefore correspond to the method of internal division of this whole, to the dialectics of the formation of concreteness outside thought, that is, in the final analysis, to the historical development of this concreteness, although, as will be shown later, this coincidence is by no means simple, dead, or mirror-like, being concerned only with universal moments of development.

The formula of materialism in epistemology and logic is the reverse of what has just been formulated: the object is such that only the given rather than some other form of activity of consciousness corresponds to it; the object is such that it can be reflected in consciousness only with the aid of the given method.

In other words, the discussion of the mode of logical activity here, too, becomes the study of the objective nature of the objective reality, a further elaboration of the category of concreteness as an objective category expressing the universal form of the existence of reality.

Here, too, the principle of coincidence of logic, epistemology, and dialectics is the dominant one: a question that is purely logical at first sight is essentially a question of universal forms in which objective concreteness emerges and develops.

A materialist substantiation of the correctness and necessity of the method of ascent from the abstract to the concrete may only consist in demonstrating the real universal laws that equally dominate the formation of any concrete system of interacting phenomena (whether it be the capitalist system or the solar system, the chemical or the biological form of interaction, etc.).

Here again we run into the familiar dialectical difficulty: the approach to dialectics is dialectical in itself. It is apparently impossible to establish and theoretically express the universal laws of the formation of any concreteness on the path of inductive generalisation, of abstraction of the general and identical features, which the capitalist system has in common with the solar planetary system and the biological form of interaction in nature with the electromagnetic or chemical one.

Formulating the question in this manner means setting a task absolutely insoluble in its very nature. Mankind as a whole does not know all cases of concrete

interaction in infinite nature, let alone the present author. Nevertheless we face the task of establishing exactly the universal (that is, logical) laws of the formation of any objective system of concrete interaction. In other words, we recur to one of the eternal problems of philosophy – whether it is possible to work out a really universal, infinite generalisation on the basis of studying a limited and necessarily finite series of facts, an if it is, how is one to approach the task.

Luckily, philosophy has never even tried to obtain this understanding within the inductive approach. The actual development of science and philosophy has long found a practical way of solving this antinomy, which only seems insoluble in principle as long as it is formulated metaphysically.

In actual fact, mankind has always obtained universal, 'infinite' generalisations and conclusions, not only in philosophy but in any area of knowledge as well, through analysis of at least one typical case rather than through abstraction of those identical features that all possible cases have in common.

Suffice it in this connection to remember the words from Engels' *Dialectics of Nature*:

'A striking example of how little induction can claim be the sole or even the predominant form of scientific discovery occurs in thermodynamics: the steam-engine provided the most striking proof that one can impart heat and obtain mechanical motion. 100,000 steam-engines did not prove this more than one, but only more and more forced the physicists into the necessity of explaining it. Sadi Carnot was the first seriously to set about the task. But not by induction. He studied the steam-engine, analysed it, and found that in it the process which mattered does not appear in pure form but is concealed by all sorts of subsidiary processes. He did away with these subsidiary circumstances that have no bearing on the essential process, and constructed an ideal steam-engine – (or gas engine), which it is true is as little capable of being realised as, for instance, a geometrical line or surface, but in its way performs the same service as these mathematical abstractions: it presents the process in a pure, independent, and unadulterated form. [[Fragment, Induction and Analysis](#)]

It is not induction directed at the search of abstractions expressing the general features of all the particular cases but in depth analysis of one particular case aimed at revealing the process under study in its pure form that has been the method of philosophy whenever and wherever it really arrived at objective discoveries. It is only men like [Comte](#) and [Spencer](#) who tried to follow the path of induction and abstraction – with suitably meagre results.

Philosophy has always been concerned with its own specific problems essentially different from the desire to find the abstract general features which a crocodile has in common with Jupiter and the solar system with wealth. Philosophy has always had its own serious problems, the solution of which brought it closer to the establishment of the universal laws of everything that exists, to revealing the content of categories.

Marx, as is well known, gave a critical analysis of the Hegelian system of universal categories, but he did not do that by comparing these categories with the features which mankind has in common with the atomic nucleus or both of them with the structure of the great Universe.

Hegel's system was critically overcome through its critical comparison mostly with

one instance of dialectical development (but, what is most important, a most typical one) – with the dialectics of social production relations at one stage of their development.

A critical overcoming of the universal categories historically developed by philosophy, with reference to at least one typical case, is the real path always taken by the evolution in understanding the content of universal categories.

The basic task of the theoretical analysis of the universal is always actual] reduced to the analysis of the individual from the standpoint of the universal. One must only be able to single out in the individual that which constitutes the universality of this case rather than its individuality or specificity. It is at this point that one most requires a conscious attitude to abstraction and the methods of it obtaining. For the most ordinary error of theoretical inquiry is made when that which actually refers to the given concurrence of transient circumstances in which a real universal form is contemplated, is taken for the universal form itself of the individual fact.

To reveal the content of such a universal category as concreteness, one may and must study at least one typical case of a living dialectically developed system of internally interacting objective phenomena.

The system of capitalist relations between men typical instance of such a self-developing relatively independent system (concreteness). We shall consider it as an immediate particular case of concreteness in general, in which the universal outlines of any concreteness may and must be revealed. Materials from other fields will be considered to the extent in which they are characteristic in themselves.

The choice of this material is determined by reasons other than subjective caprice or personal inclination. A much more weighty consideration in favour of this choice is that no other concreteness has been comprehended as profoundly as this one. No other system of concrete interaction has been presented to the mind in the entire complexity and fullness of its internal dialectics, in the entire complexity of its structure as the system of capitalist relations revealed in Capital and other works of the founders of Marxism-Leninism, and that is exactly why it is most expedient to use this material as the basis for considering the universal characteristics of any concreteness, for explicating the category of concreteness in general.

This mode of consideration fully coincides with what Marx himself did in his cognitive practice.

When Marx set himself the task of revealing the universal law of capitalism as such, as a historically determined system of social production, he did not take the path of inductive comparison of all without exception, of capitalist development that took place on the planet in his time. He acted differently, as a dialectician: he took the most characteristic and best developed case, namely capitalist reality in England and its reflection in English economic literature and worked out a universal economic theory, mostly on the basis of detailed investigation of this angle instance.

He understood that the universal laws of the development of capitalism are the same for any country, and that England, having advanced farther than any other country along the path of capitalist development, demonstrated all phenomena in

their most distinct form. All that which in other countries was present as a very weak and hardly distinguishable rudiment, as a tendency that was not yet fully formed, obscured and complicated by secondary external circumstances, existed here in the most developed and classically clear-cut form. On some occasions only did Marx use materials concerning the capitalist development of other countries (in his analysis of rent, for instance, he used numerous materials from the economic development of the Russian village). This way, the way of establishing the immediately common features of different instances of capitalist development, was not a royal road for arriving at a universal theory of capitalist development. The royal road of his inquiry was invariably the study of English economic reality and a constructive critique of English political economy.

The same considerations should apparently be taken into account in tackling the problem of the categories of dialectics as logic and epistemology, as the science of thought. It is capitalist reality theoretically revealed in Capital and other works of the same cycle (both by Marx and by his best pupils and followers, in the first place by Engels and Lenin) that provides the most comprehensive picture of a historically emergent and developed concreteness, as a most typical instance of concreteness in general. It is Capital that we regard as heretofore unsurpassed model of conscious application of the dialectical method, of dialectical logic in the fullness of its content. It shows many sciences their own future, demonstrating in classically clear-cut form all those aspects of the method that have not yet been realised in other sciences in the same consistent manner.

It should also be pointed out that constructive critique of previous theories – a necessary moment of the theoretical elaboration of the scientific problems of our times – assumes that critically assimilated is the best-quality theoretical (mental) material, the really best models of theoretical comprehension of the actuality which appears in the given case as the object of attention and inquiry.

As Marx developed his economic theory, the principal theoretical opponents with whom he argued in working out his comprehension of reality, were the classicrepresentatives of bourgeois political economy rather than the contemporary representatives of vulgar economy and of the 'professorial form of decay' of theory. The latter were Marx's contemporaries only chronologically, not from the standpoint of theoretical comprehension of the subject-matter. In regard to theory they were infinitely inferior to the classics and were by no means a theoretical opposition worthy of serious argument. Unfolding his theoretical comprehension of reality in the form of serious argument with the classics, Marx merely ridicules, whenever the occasion warrants, such 'theoreticians' as Senior, Bastiat, MacCulloch, Roscher, etc. Criticising these latter was only appropriate when the theoretical comprehension of the subject-matter had already been unfolded in its essence.

As far as philosophical categories, the categories of dialectics are concerned, classical bourgeois philosophy still remains the only worthy and serious theoretical opponent of the philosophy of dialectical materialism, which, however, does not at all eliminate the task of fighting against modern bourgeois systems but, on the contrary, helps to lay bare their desire to escape the great philosophical problems.

The attitude of Marx, Engels and Lenin to Hegel or Feuerbach was fundamentally different from their attitude to [Schopenhauer](#), Comte, [Mach](#), or Bogdanov. Sharply criticising the speculations of petty idealists, they never even tried rational kernel in their writings.

In denouncing the mixed-up sophistic argumentation of Machists, Lenin first of all reduces it to the classically transparent and principled expression which these views were given by [Berkeley](#) and [Fichte](#). That is not merely a polemic manoeuvre but the best way of theoretically uncovering the essence of their position. On the other hand, when Lenin faces the task of further elaboration of materialist dialectics, he leaves aside Machists as Berkeley's theoretical adherents and goes back to a critical analysis of Hegel's *The Science of Logic* as the real peak of bourgeois thought in comprehending the universal laws of nature, society, and human thought.

The above may be summed up as follows: a genuinely concrete substantiation of the method of ascent from the abstract to the concrete as the only scientifically correct method of logical development, as the only method corresponding to the objective dialectics, should be looked for in Marx's *Capital*, and in the analysis of its logical structure.

Logic, epistemology, and dialectics consistently coincide in *Capital*, and this systematic coincidence, the coincidence of induction and deduction, of analysis and synthesis, characterising the method of ascent from the abstract to the concrete, is the distinguishing feature of Marx's method of inquiry. Let us first consider the problem in its concrete economic expression, and then proceed to general methodological and logical conclusions.

Let us pose this question: is it in general possible to understand theoretically (to reproduce conceptually) the objective essence of such phenomena as surplus-value and profit if the category of value has not been previously and independently analysed? Can money be understood if the laws governing the movement of simple commodity market are not known?

Those who have read *Capital* and are familiar with the problems of political economy are aware that this is an insoluble task.

Can one form a concept (a concrete abstraction) of capital through purely inductive generalisation of the abstract features observed in any of the various kinds of capital? Will such an abstraction be satisfactory from the scientific point of view? Will such an abstraction express the inner structure of capital in general, as a specific form of economic reality?

As soon as we pose the question in this form, the need for a negative answer to it becomes apparent.

This abstraction will of course express the identical features that industrial, financial, commercial, and usurious capital have in common. It will indubitably free us from repetitions. But that will exhaust its actual cognitive potential. It will not express the concrete essence of any of these kinds of capital. It will just as little express the concrete essence of their mutual connection, their interaction. These are precisely the features from which an abstraction is made. But, from the standpoint of dialectics, it is exactly the concrete interaction of concrete phenomena that constitutes the subject-matter and goal of thinking in concepts.

The meaning of the general is contradictory, as Lenin pointed out; it deadens living reality but at the same time is the only possible move towards its comprehension. In the given instance, however, it is easy to see that the general does nothing but deaden the concrete, moving away from it and being in

no way at the same time a step towards it. It is from the concrete, as from the 'inessential', that this general is an abstraction.

Neither does this abstraction express the universal nature of capital (of any capital – industrial, financial, or commercial).

Marx's Capital demonstrates in a very graphic manner that the concrete economic nature of commercial capital, as a concrete aspect of the capitalist whole, cannot in principle be understood or expressed in theoretical abstraction unless industrial capital is previously understood in its inner structure.

To consider the immanent definitions of industrial capital is the same as to reveal the essence of capital in general. It is just as undoubted that industrial capital cannot be understood before value.

'... The rate of profit is no mystery, so soon as we know the laws of surplus-value. If we reverse the process, we cannot comprehend either the one or the other.' [\[Capital I\]](#)

Let us stress that the point here is understanding (expressing in a concept), for it is of course quite possible to create the abstraction of profit in general. In the latter case it is sufficient to reduce the empirically observed phenomena of profit to an abstract expression. This abstraction will be quite adequate for distinguishing with certainty between the phenomena of profit and other phenomena, for 'recognising' profit. This is quite successfully done by every entrepreneur, who can very well distinguish between profit and wages, money, and so on.

In doing so, the entrepreneur does not understand, however, what profit is. He does not need it, either. In practice, he acts as an instinctive adherent of positivist philosophy and empirical logic. He merely lends a generalised expression to phenomena that are important and essential from his point of view, from the standpoint of his subjective goals, and this generalised expression of phenomena excellently serves him in practice as a concept permitting him to distinguish with certainty profit from non-profit. As an honest-to-goodness positivist, he sincerely believes all talk about the inner nature of profit, about the essence and substance of this phenomenon, so dear to his heart, to be metaphysical sophistry, philosophising divorced from life. Under conditions of capitalist production, the entrepreneur does not have to know any of this. 'Anyone can use money as money without necessarily understanding what money is.' [\[Theories of Surplus Value III\]](#)

The narrow practical intellect, as Marx emphasised, is basically alien and hostile to comprehension (c.f. the remark about Friedrich List in Chapter One of [A Contribution to the Critique of Political Economy](#)).

It may even be harmful to the entrepreneur to philosophise on the problem of profit. While he is trying to understand it, other, smarter and more practical and pushy operators, will snatch his share of profit. A businessman will never exchange real profit for an understanding of what profit is.

In science, in reasoning, however, comprehension is important. Science as thinking in concepts begins only where consciousness does not simply express in other words the conceptions of things spontaneously thrust upon it but rather attempts to analyse both things and conceptions of things in a goal-directed and

critical manner.

To comprehend a phenomenon means to establish its place and role in the concrete system of interacting phenomena in which it is necessarily realised, and to find out precisely those traits which make it possible for the phenomenon to play this role in the whole. To comprehend a phenomenon means to discover the mode of its origin, the rule according to which the phenomenon emerges with necessity rooted in the concrete totality of conditions. It means to analyse the very conditions of the origin of phenomena. That is the general formula for the formation of a concept and of conception.

To comprehend profit means to establish the universal and necessary nature of its origin and movement in the system of capitalist production, to reveal – its specific role in the overall movement of the system as a whole.

That is why a concrete concept can only be realised through a complicated system of abstractions expressing the phenomenon in the totality of conditions of its origin.

Political economy as a science historically begins where recurrent phenomena (profit, wages, interest, etc.) are not merely registered, in terms of generally understood and generally acceptable designations (that takes place before science and outside science, in the consciousness of the practical participants of production) but are comprehended concretely, through analysis of their place and role in the system.

Thus, it is in principle impossible to comprehend (express in a concept) profit unless surplus-value and the laws of its origin are comprehended previously and independently from the former.

Why is that impossible? If we answer this question in a general theoretical form, we shall thereby show the real necessity of the method of ascent from the abstract to the concrete, its applicability to any field of knowledge.

We shall therefore turn to the history of political economy.

Adam Smith's Induction and David Ricardo's Deduction.
The Viewpoints of Locke and Spinoza in Political Economy

The logical conflicts in the development of political economy would be incomprehensible if we did not establish real connections between it and contemporary philosophy. The categories in which English economists consciously comprehended empirical facts were rooted in the philosophical systems current at the time.

A characteristic fact that had a profound effect on the development of economic thought in England was that one of the first theoreticians of political economy turned out to be none other than John Locke, the classical representative of empiricism in philosophy.

'Locke's view is all the more important because it was the classical expression of bourgeois society's ideas of right as against feudal society, and moreover his philosophy served as the basis for all the ideas of the whole of subsequent English

political economy.' [Theories of Surplus Value]

Locke's views proved to be the intermediate link between the philosophy of English empiricism (with all the weaknesses of the latter) and the emerging theory of wealth. Through Locke, political economy assimilated the basic methodological principles of empiricism, in particular and especially the one-sided analytical and inductive method, the standpoint of the reduction of complex phenomena to their elementary constituents.

However, just as in the natural sciences of that epoch, the actual cognitive practice of the study of economic phenomena even in Locke himself differed essentially from the kind of epistemology that could be and was recommended by consistent empiricism. The method which was actually used by theoretical economists to form theoretical definitions of things, despite their one-sided epistemological illusions, did not tally with empirical inductive logic. While consciously applying the one-sided analytical method, the theoreticians proceeded in fact, without realising it clearly, from a number of theoretical assumptions which essentially contradicted the principles of the narrow empirical approach.

The logic of pure empiricism was incapable of coping with the task of working out a theoretical view of the phenomena of economic reality for the simple reason that actual economic reality was a most complex interlacing of bourgeois capitalist forms of property with the feudal ones.

Under those conditions direct inductive generalisation of empirical facts would have yielded, at best, only a correct description of the results of interaction of two not merely different but diametrically opposed and hostile principles of ownership. Locke's empirical-deductive method would not have permitted to go deep into the inner 'physiology' of bourgeois private ownership.

It is well known that Locke himself did not merely generalise what he saw but actively singled out in the empirical facts only those forms and moments which, in his view, corresponded to man's eternal and genuine nature.

In other words, the very task of abstract analytical extraction of the elementary constituents, the task of analysing empirical facts here as well implied a certain universal criterion according to which some forms of economy are described as 'genuine', as 'corresponding to man's nature', while others are eliminated as 'un-genuine'. The bourgeois individualistic conception of 'man's nature' was used by all the bourgeois theoretician as such a criterion. Locke was one of the originators of this view.

Clearly, this universal and fundamental principle of bourgeois science, used as a yardstick to measure empirical facts, could as little be obtained by empirical induction as the concept of atom. In Locke's time, bourgeois capitalist form of ownership was by no means universal and dominant. It was not an empirically universal fact, and the conception of wealth as the starting point of bourgeois political economy could not be formed by inductive generalisation of all the particular instances and kinds of ownership without exception.

It was formed with the aid of considerations quite different than the purely logical ones. The spontaneous social reason here too proved to be stronger than the cannons of ratiocinative, intellectual logic.

In other words, from its birth political economy faced the same logical problem as Newton did in his field: to make even a single inductive generalisation, an economist would have to have some conception, at least implied, of the universal genuine nature (substance) of the phenomena under consideration.

Just as [Newton](#) based all his inductions on the idea that only the geometrically definable forms of facts are the solely objective forms, economists silently assumed that only those forms of economy which corresponded to the principles of bourgeois private ownership were the genuine forms.

All other forms of economic relations were silently eliminated as subjective errors of men, as forms that do not correspond to the genuine, natural, and therefore objective nature of man. Only those definitions of facts were incorporated in theory which were an immediate and direct outcome of man's 'eternal nature' – in actual fact, of the specific nature of the private proprietor, the bourgeois.

All theoreticians of bourgeois political economy thus had to proceed and really did proceed from quite a definite universal basic principle, from a clear conception of the substance, the general objective nature of the particular cases and forms of economy.

This conception of substance, just as in natural science, could not be obtained through empirical induction. But Lockean epistemology was silent on just this point – on the question of the ways of cognition of substance, of the ways of formation of the universal original foundation of science. This foundation, the conception of the substance of wealth, had to be worked out by economists (Locke included) in a purely spontaneous way, without a clear understanding of the ways of obtaining it.

However it may be, English political economy practically solved this difficulty when [William Petty](#) discovered this universal substance of economic phenomena, the substance of wealth, in labour producing commodities, in labour performed with the objective of alienating the product of labour in the free market.

Insofar as economists actually proceeded from this more or less clearly realised conception of the universal substance of wealth, their generalisations were theoretical in nature and differed from the purely empirical generalisations of any merchant, usurer, or market woman.

But this meant that a theoretical approach to things coincided with the desire to understand different particular forms of wealth as modifications of one and the same universal substance.

The fact, however, that classical political economy was linked up, in its conscious methodological convictions, with Locke's philosophy, made itself felt directly, and in a very instructive form. As a result, theoretical investigation of facts proper was continually interlaced with simple uncritical reproduction of empirical conceptions.

This is most clearly seen in the work of [Adam Smith](#). The first economist to express clearly the concept of labour as the universal substance of all economic phenomena, fie unfolded a theory in which properly theoretical consideration of facts was continually interwoven with extremely untheoretical descriptions of empirical data from the standpoint of a man forcibly involved in production and accumulation of value.

'Smith himself moves with great naivete in a perpetual contradiction. On the, one hand lie traces the intrinsic connection existing between economic categories or the obscure structure of the bourgeois economic system. On the other, he simultaneously sets forth the connection as it appears in the phenomena of competition and thus as it presents itself to the unscientific observer just as to him who is actually involved and interested in the process of bourgeois production. One of these conceptions fathoms the inner connection, the physiology, so to speak, of the bourgeois system, whereas the other takes the external phenomena of life, as they seem and appear and merely describes, catalogues, recounts and arranges them under formal definitions. With Smith both these methods of approach not only merrily run alongside one another but also intermingle and constantly contradict one another.' [Theories of Surplus Value II]

Smith himself did not of course notice the contradiction between the two modes of reflection of reality in abstractions. It is easy to recognise here a scientist who pictures the process of cognition in a purely Lockean manner. It was Locke's epistemology that ignored the distinction between theoretical abstraction (concept) and simple empirical abstraction, simple expression in speech of the sensually stated similarities and distinctions.

[David Ricardo](#), as is well known, made a decisive step forward, as compared to Adam Smith. The philosophical-historical significance of this step consisted first and foremost in that he was the first to distinguish, consciously and consistently, between the task of properly theoretical consideration of empirical data (the task of expressing these data in concepts) and the task of simple description and cataloguing of phenomena in the form in which they are immediately given in contemplation and notion.

Ricardo understood very well that science (thinking in concepts) dealt with the same empirical facts as simple contemplation and notion. In science, however, these facts have to be considered from a higher point of view – that of their inner connection. This requirement was not consistently and rigorously satisfied in Smith, whereas Ricardo strictly insisted on it.

Ricardo's view of the nature of scientific inquiry is much more reminiscent of Spinoza's method than the epistemology of the empiricist Locke; he consistently adheres to the substantive standpoint. Every individual economic formation, each separate form of wealth must be understood as modifications of one and the same universal substance rather than simply described.

In this respect, too, Ricardo and [Spinoza](#) are right where Smith and [Locke](#) are wrong.

Marx assessed Ricardo's role in the development of the theory of political economy with classical clarity and decisiveness:

'... Ricardo steps in and calls to science: Halt! The basis, the starting point for the physiology of the bourgeois system – for the understanding of its internal organic coherence and life process – is the determination of value by labour-time. Ricardo starts with this and forces science to get out of the rut, to render an account of the extent to which the other categories – the relations of production and commerce – evolved and described by it, correspond to or contradict this basis, this starting-point; to elucidate how far a science which in fact only reflects and

reproduces the manifest forms of the process, and therefore also how far these manipulations themselves, correspond to the basis on which the inner coherence, the actual physiology of bourgeois society rests or the basis which forms its starting-point; and in general, to examine how matters stand with the contradiction between the apparent and the actual movement of the system. This then is Ricardo's great historical significance for science' [ibid]

In other words, Ricardo's view did not consist in the reduction of complex phenomena to a number of their elementary constituents but rather in the deduction of all complex phenomena from one simple substance.

But that brought Ricardo face to face with the need for consciously abandoning the method of forming theoretical abstractions recommended for science by Lockean logic. Empirical induction did not correspond to the task facing Ricardo, the task of deducing theoretical definitions from one rigorously applied principle – the conception of the nature of value as determined by labour.

Adam Smith, to the extent in which he actually produced something more significant than mere description of facts, spontaneously and unconsciously contradicted at every step his own philosophical premises borrowed from Locke, doing something quite different from what he thought lie was doing, whereas Ricardo quite consciously chose the path of theoretical deduction of categories.

The rigorously deductive character of his reasoning has long become proverbial among political economists. But it was Marx alone who correctly evaluated the significance of this deduction, showing it as the natural logical expression of the greatest merit of Ricardo's theoretical approach – his desire to understand all forms of bourgeois wealth without exception as more or less complex and remote products of labour producing commodities, of labour producing value, and all categories of political economy, as modifications of the value category.

What distinguishes him from Smith is his desire to regard empirical facts consistently and without waverings from one and the same viewpoint rigorously formulated in the definition of the basic concept – from the labour theory of value.

This standpoint is also present in Smith, and that makes him a theoretician. But it is not the only point of view with him, and on this score Ricardo is decisively at variance with Smith. In the latter, theoretical consideration of facts (that is, their analysis from the standpoint of the labour theory of value) all too often gives way to their purely empirical description.

Ricardo found, spontaneously and by trial and error, the correct view of the nature of theoretical analysis of facts. Hence his desire for a strictly deductive consideration of phenomena and categories.

This conception of deduction, as is easy to see, does not yet contain anything metaphysical or idealistic or formal logical. In this conception, deduction is tantamount to a negation of eclecticism with regard to facts. That means that a conception of the universal nature or substance of all the particular and individual phenomena, once established, must remain the same throughout the investigation, providing guidance for the understanding of any particular or individual phenomenon.

In other words, deduction in this interpretation (and in this interpretation only!) is

a synonym of a really theoretical attitude to empirical facts.

The first formal indication of decline of Ricardo's school of political economy was the giving up of the attempt to develop the entire system of economic categories from one established principle (the labour theory of value). Representatives of the 'Vulgar economy', and still more of hotchpotch compilation that Marx branded contemptuously as the professorial form of the decay of theory, rebelled first of all against the teacher's deductive manner of inquiry. They rejected that which was Ricardo's chief virtue as a theoretician – his desire to understand each particular category as a converted form of value, as a complex modification of labour creating commodities.

The principle of the vulgar and professorial form of theorising was this: if one could not deduce a conception of real phenomena from one basis common to them all (in this case from the labour theory of value) without running at once into a contradiction, one had to abandon the attempt in general, one had to introduce still another principle of explanation, one more 'point of view'. If that did not help, one merely had to introduce a third and a fourth principle, taking into account this, that, and the other.

Supposing one could not explain the real market value (price) of a capitalistically produced commodity in terms of the necessary time spent on its production. That only meant that one need not persist in one-sidedness. Why not assume that value comes from many different sources rather than from one single universal source, as Ricardo believed? From labour too, but not only from labour. One must not underestimate the role of capital and the role of natural fertility of soil; one had to take into account the whims of fashion, accidents of demand, the effect of the seasons (felt boots cost more in winter than in summer), and a host of other factors, including the effect on the market situation of the periodical changes of the number of spots on the Sun that have an undoubted effect on crops and therefore on the price ('value') of grain and bread. Marx was never more sarcastic than in criticising the manner of theorising characteristic of the vulgar and professorial pseudo-theory. This eclectic manner of explaining a complex phenomenon by a number of factors and principles without any inner connection between them is, in Marx's apt phrase, a real grave for science. There is no more theory, science, no more thinking in concepts here, only a translation of the widely spread superficial notions into the doctrinaire language of economic terminology and their systematisation.

John M. Keynes, an acknowledged classic of the entire present-day official science of the capitalist world, no longer permits himself to speak of value in general. In his view, that is an empty word, a myth. The only reality he recognises is market price. The latter, according to his theory, is determined by a concurrence of most diverse circumstances and factors, where labour plays a very insignificant role. Keynes insists, for instance, that the interest-rate entirely depends on the emotions of the owners of capital and is therefore a purely psychological factor. But that is not strong enough for Keynes:

'It might be more accurate, perhaps, to say that the rate of interest is a highly conventional, rather than a highly psychological, phenomenon. 'slumps and depressions', according to [Keynes](#), are 'the mere consequence of upsetting the delicate balance of spontaneous optimism. In estimating the prospects of investment, we must have regard, therefore, to the nerves and hysteria and even the digestions and reactions to the weather of those upon whose spontaneous activity it largely depends.' [Keynes 1936]

There can be no question of theory or science here, of course. Where vulgar economy was mostly busy translating popular superficial conceptions into the doctrinaire language, assuming that it elaborated concepts, modern bourgeois science passes off the capitalist's irrational emotions in their scholastic expression for concepts. That is the limit, as the saying goes.

Marx showed clearly that after Ricardo, the height of bourgeois political economy, the latter entered the phase of degradation. This degradation is certainly camouflaged by high-sounding verbiage and appeals for sober, inductive empirical study of facts, etc. In opposing their induction to Ricardo's deductive method, the representatives of the decaying bourgeois political economy merely advocate eclecticism as against rigorous theory.

His desire to comprehend all categories without exception from the consistent position of the labour theory of value is unacceptable to them for, as they might have occasion to see, this position, when one considers its tendency of development, inevitably leads to the conception of the system of bourgeois economy as a system of insoluble antagonisms and contradictions. The motive force behind this attitude to Ricardo and his deductive method is simply an apologetic attitude towards reality.

Thus, Ricardo does not come to the choice of the deductive method of considering empirical facts out of a loyalty to rationalism. He applies this method of developing theoretical definitions, because it is the only one that answers his desire to understand the system of bourgeois economy as an integral system coherent in all its manifestations rather than as a totality of more or less accidental relations of men and things. Ricardo wants to deduce any particular, specific form of relations of production and distribution of wealth out of the labour theory of value, out of a theory expressing the universal substance, the real essence of all economic phenomena.

This desire of Ricardo is his absolute merit as a theoretician. The giving up of this desire is in general tantamount to a rejection of theoretical attitude to empirical facts. Here we see already that the method of reasoning which proceeds from a universal theoretical expression of reality as a rigorously tested basic principle, can ensure a theoretical attitude to empirical facts. Otherwise thought inevitably slides into eclectic empiricism.

Ricardo by no means rejects the empirical element in investigation. On the contrary, he realises that a genuine understanding of empirically given facts, genuine (rather than eclectic) empiricism, can only be carried through if empirical facts are considered from a standpoint in itself substantiated as the only correct and objective one, rather than from an arbitrary standpoint.

Spontaneously obeying the logic of things, Ricardo thus comes to the starting-point of theory that was later chosen by Marx consciously. Yet the fact that Ricardo arrived at this view of reality and of ways of reproducing it conceptually in a purely spontaneous manner, having no clear idea of the dialectics of the universal, the particular, and the individual, with which he had to deal in reality, this face left its imprint on his theory.

The conscious philosophical conceptions that were at his disposal – those of the relationship of deduction and induction, the universal and the particular, of essence and appearance, etc., had a direct bearing on the process of cognition as

it was actually carried out by him. They had a significant effect on his inquiry and in some cases were directly responsible for the failure of his search.

What Ricardo actually did was not at all deduction in the sense in which it was interpreted by the metaphysical logic of his epoch; it was by no means speculative deduction of one concept from another concept. In his hands it is, in the first place, a method for theoretical expression of empirical facts, of empirical phenomena in their inner unity. As such, this method includes empirical induction. But he does not go unscathed by the pure manner in which induction and deduction coincide in his method. Where he has to take a clear view of his method of studying facts, he is compelled to accept the contemporary conception of deduction and induction, of the relation of the universal to the particular, of the law to forms of its manifestation, etc. The metaphysical conception of the categories of logic and of ways of reproducing reality in thought directly disorients him as a theoretician.

Let us analyse Ricardo's line of reasoning to show this more clearly. His method is as follows. He proceeds from the definition of value by the quantity of labour time, taking it as a universal basic principle of his system. Then he attempts to apply this universal basic principle, directly and immediately, to each of the particular categories with the aim of checking whether they agree with this universal basic principle or not.

Everywhere he endeavours to show direct coincidence of economic categories with the law of value.

In the spirit of contemporary metaphysical logic and philosophy, Ricardo assumed that the universal definition on which he based his deduction was a direct generic concept, that is, an abstract general concept comprising in itself the features that were directly common to all phenomena comprehended by it, and nothing more. The relation of the value concept to the concepts of money, profit, rent, wages, interest, etc., appeared to him a genus-to-species relation between concepts. According to this conception based on a metaphysical notion of the relation of the universal to the particular and the individual, the concept of value must include only those features that are equally common to money, profit, rent, and any of the other categories. In the same spirit, he believed that any specific category was not exhausted by traits expressed in the definitions of the universal concept, and that each specific category possessed, apart from these definitions, additional features expressing precisely the specificity of each particular category.

Consequently, it is by no means enough to subsume any category under a universal principle or definition of a universal concept (in this case, the value concept). This operation will show only that in the particular category which is already expressed in the definitions of the universal concept. It is then necessary to find out what definitions are present in it over and above that the definitions expressing the distinctive rather than the common, identical features.

This logical conception, applied to the categories of political economy, appears as follows. Money, just as all the other categories, is a particular form of value. It follows that real money is subject in its motion to the law of value, first and foremost. It follows that the labour theory of value is directly applicable to money; in other words, definitions contained in the value concept must above all be included in the theoretical definition of money. That is the way in which the first definition of money is deduced.

It is quite clear, however, that this does not exhaust the concrete nature of money. The question then naturally arises what is money as money, what is money over and above the fact that it is the same kind of value as all other kinds, why money is money rather than simply value.

At this point in the study of the nature of money and the formation of the necessary theoretical definitions of money as a separate economic phenomenon, all deduction naturally stops. Deduction permitted to distinguish only those definitions of the nature of money which were previously contained in the concept of value.

And what is one to do next? How is one to discover in the actual empirical phenomena of money circulation theoretical definitions that would express just as necessary properties of money as those that are deduced from the value concept? How is one to read in the real money those characteristics that belong to it as necessarily as the universal value definitions yet at the same time constitute the difference of money from all the other forms of the existence of value?

Deduction becomes impossible at this point. One has to resort to induction, the goal of which is the singling out of definitions that are equally inherent in all the cases of the movement of money – the specifically general properties of money.

That is the way Ricardo is compelled to act. He constructs further theoretical definitions of the money form through immediate empirical induction, through singling out those abstract general properties which all phenomena of money circulation without exception have in common. He directly generalises the phenomena of the money market, in which simultaneously diverse forms of money circulate – metal coins, bullion, paper money, etc. He looks for the features that are common to metal coins, paper banknotes, gold and silver bullion, bank vouchers, promissory notes, etc. That is the fatal weakness of his theory of money.

Following this line, Ricardo confuses theoretical definitions of money as money with those properties which money actually owes to capital, whose specific movement in money has nothing in common with the phenomena of money circulation as such. As a result, he takes the laws of movement of financial capital for the laws of money movement and vice versa – he reduces the laws of financial capital to those of simple circulation of metal coins. Money as such, as a specific economic phenomenon, is not comprehended theoretically, just as before, or rather it is conceived erroneously.

Ricardo himself sensed that this method was inadequate. He understood that the purely empirical induction to which he had to resort at this point did not and could not by its very nature yield the necessary conclusion about the nature of money. This understanding did not come from purely logical considerations. The fact is that he continually argues with heads of banks and financiers who, in his view, handle money in a way that contradicts the value nature of money rather than agrees with it. He regards this as the cause of all unpleasant conflicts and dysfunctions in the sphere of money circulation. That is what compels him to look for the genuine essence and nature of money, not the philosophical and logical interest.

The empirically given picture of money circulation presents something directly opposed to the genuine nature of money – the handling of money that does not correspond to the nature of money, the results of incorrect handling of money by

banks. So, purely empirical induction, as Ricardo himself understood quite clearly, will at best yield a generalised expression of untrue movement of money, one that

does not correspond to the nature of money, and will never yield a generalised expression of movement of money corresponding to the law of its existence.

In other words, he wants to find a theoretical expression of the kind of movement of money (gold, coins, papers, vouchers, etc.) which directly answers the requirements of the universal law of value and does not depend (as in the empirical reality) on the ill will, cupidity, and caprice of heads of banks. He searches for the genuine nature of money with the aim in view that the practical financier should act differently from the way he has acted previously – in accordance with the needs flowing from the nature of money.

He endeavours to solve this task by deducing the theoretical definitions of money from the law of value, which alone can show the necessary characteristics contained in the very nature of money.

But he will not be able to deduce the specific features of money as such, those that are not contained in the theoretical definitions of the universal law of value but constitute the specificity of money as a particular kind of value. No sophisticated procedures will help to deduce the specific properties of money from the definitions of value. Willy-nilly they have to be obtained not through deduction from a universal principle of the theory but through purely empirical induction, by extraction of the abstract general from all forms of money circulation without exception, including metal coins, paper money, state banknotes, and all the rest.

The conception of money therefore remained one of the weakest points of the theory of the Ricardian school.

Ricardo's deduction actually remains purely formal, enabling one to single out in the phenomenon only that which was already contained in the definitions of the universal concept, while induction remains purely empirical and formal rather than theoretical; formal induction does not permit to abstract from the phenomenon those of its aspects which necessarily belong to it, being bound to the nature of the phenomenon as its attributes rather than emerging in it through the influence of external circumstances unconnected with its nature.

The formal nature of deduction in Ricardo's system was still more apparent when he attempted to include such phenomena as profit and surplus-value in the sphere of the law of value.

In including profit in the universal category of value, Ricardo came face to face with the paradox that profit, on the one hand, could be included in the category of value but, on the other hand, profit contained, over and above the established universal definitions, something that proved to contradict the universal law if one attempted to express this 'something' through the category of value.

The situation here is somewhat similar to a hypothetical case where one would apply the dictum 'All men are mortal' to a certain Caius and see that, on the one hand, the dictum does apply to him but, on the other, his individual special trait is precisely that he is immortal.

That is exactly the kind of absurd situation in which Ricardo found himself when he tried to deduce theoretical definitions of profit from the law of value, when he tried to apply the law of value directly to profit. True, Ricardo himself did not notice this contradiction although it was he who discovered it. But it was immediately noticed by enemies of the labour theory of value, in particular by Malthus.

Ricardo's adherents and followers tried hard to prove what could not be proved that this contradiction in his system did not actually exist, and if it did, it resulted merely from the teacher's vagueness of expression, deficiency of his terminology, etc., and could therefore be eliminated by purely formal means – through changes in the terms, more precise definitions, expressions, etc., etc.

These attempts signified the beginning of the decline of Ricardo's school and factual rejection of the principles of the labour theory of value despite formal agreement with them. Precisely because the logical contradiction between the universal law of value and the law of the average rate of profit established by Ricardo's theory is a quite real contradiction, all attempts to present it as non-existent, as the product of vague expression and imprecise definition, could not result in anything but factual rejection of the very essence of the theory, of its rational kernel.

The first and principal indication of the decline of Ricardo's school was the factual discarding of the objective of developing the entire system of economic categories from one universal principle, from the principle of defining value by the quantity of labour time, from the conception of labour creating value as the real substance and source of all the other forms of wealth.

At the same time the development of theory after Ricardo directly led to the need for a firm grasp on the dialectics of the relation of the universal law to developed forms of its realisation, to the particular. development of Ricardo's theory led to the problem of contradiction in the very essence of the definitions of the subject-matter of theoretical investigation. Neither Ricardo himself nor his orthodox followers could cope with the difficulties through which the actual dialectics of reality manifested itself to thinking. Their reasoning remained essentially metaphysical and naturally could not conceptually express dialectics without rejecting its own fundamental logical notions, including the metaphysical understanding of the relation of the abstract to the concrete, of the universal to the particular and the individual.

Inability and unwillingness to consciously express in concepts the contradictions, the dialectics inherent in things was manifested in reasoning as obvious logical contradictions within theory. Metaphysics in general knows only one way of solving logical contradictions – elimination of them from reasoning, interpretation of contradictions as products of vagueness of expression, definitions, etc., as purely subjective evil.

Although Ricardo approached facts and their theoretical expression in a spontaneously correct way, consciously he remained on the positions of the metaphysical method of reasoning. Deduction for him was still a method of development of concepts which permitted to see in a particular phenomenon only that which was already contained in the major premise, in the original universal concept and its definitions, while induction contained thereby to be one-sidedly empirical. It offered no opportunity for singling out those traits of phenomena which necessarily belong to them and for forming a theoretical abstraction that

would express phenomena in their pure form, in their immanent content.

Deduction and induction, analysis and synthesis, universal concept and concept expressing the specificity of a phenomenon – all these categories still remained metaphysical opposites in Ricardo, which he could not link up.

Deduction continually came into conflict with the task of inductive generalisation of facts in his system; in trying to bring analytical abstractions into a system, i.e. to synthesise them he ran into the insurmountable difficulties of logical contradiction; a universal concept (value) proved to be in mutual contradiction with a particular concept (profit) in his system, etc., etc. Under enemy fire, these internal lifts widened and the whole labour theory of value decayed, turning into compilation work without any system, which could only plume itself on empirical comprehensiveness totally unaccompanied by a theoretical understanding of the actual concreteness.

Philosophy and logic of Ricardo's time did not (and could not) provide any correct indications concerning a possible way out of all these difficulties. What was required here was conscious dialectics combined with a revolutionary critical attitude to reality – a mode of reasoning that was not afraid of contradictions in definitions of objects and was alien to an apologetic attitude to the existing state of things. All these problems met at one point – the need to understand the system of capitalist production as a concrete historical system, as a system that emerged and developed towards its end.

Deduction and the Problem of Historicism

While he viewed the subject-matter of inquiry, capitalist economy, as a single whole coherent in all its manifestations, as a system of mutually conditioning relations of production and distribution, Ricardo at the same time did not regard this system as a historically emerging and developing integral totality of relations between men and things in the process of production.

All the merits of Ricardo's method of inquiry are closely connected with the substantive viewpoint, that is, with the conception of the object as a single whole coherent in all its manifestations. Contrariwise, all the defects and vices of his mode of unfolding his theory are rooted in complete failure to understand this whole as a historically formed one.

The capitalist form of production seemed to him to be the natural, eternal form of any production whatever. That explains the non-historical (and even anti-historical) character of his abstractions and lack of historicism in the method of obtaining them. Deduction of categories, where it is combined with a non-historical comprehension of the object reproduced with its help in the concept, inevitably becomes purely formal.

It is easy to see that deduction in its very form corresponds to the conception of development, of movement from the simple, undivided, and general to the complex, divided, individual and particular. Now, if objective reality reproduced in concepts deductively is in itself understood as non-developing reality, as an eternal and natural system of interacting phenomena, deduction, naturally and inevitably, appears only as an artificial procedure in the development of thought. In this case, too, logic necessarily recurs to the view of the nature of deduction

which was expressed in classically clear form by Descartes.

As he set about the construction of his system of the world, the deduction of all the complex forms of interaction in nature from the movements of the elementary particles of matter defined exclusively in geometrical terms, Descartes justified his mode of theory construction in the following way: 'And its nature (of the world –E.I.) is much more easily conceived if one thus watches its gradual origin than if one considers it as ready made.' Unwilling to come into open conflict with the theological teaching of the creation of the world, Descartes immediately qualified this statement: 'At the same time I did not wish to infer from all this that our world was created in the way I suggested; for it is much more likely that from the beginning God made it in the form it was intended to have.'

It was obvious to Descartes that the form of deduction which he consciously applied was closely akin to the conception of development and emergence of things in their necessity. That was why he faced the ticklish problem of reconciling deduction and the idea that the object was eternally equal to itself and had not come from anywhere in particular, being once created by God.

Ricardo found himself in the same kind of situation. He understood quite well that only deductive movement of thought could express phenomena in their inner connection, and that one could only cognise this connection in considering the gradual emergence of divers forms of wealth from one substance common to them all – from commodity-producing labour. But how was one to link up this mode of reasoning with the idea that the bourgeois system was a natural and eternal system that could neither emerge nor develop in reality? Still, Ricardo reconciled these two conceptions, in their essence absolutely incompatible. This was reflected in his method of reasoning, in the method of forming abstractions.

The fact that the construction of theory begins with the category of value, later to proceed to the consideration of other categories, may be justified by the category of value being the most general concept which implies profit, interest, rent, capital, and all the rest – a generic abstraction from these real particular and individual phenomena.

The movement of thought from an abstract general category to the expression of specific features of real phenomena therefore appears as movement entirely in thought but by no means in reality. In reality all categories – profit, capital, rent, wages, money, etc. – exist simultaneously with one another, the category of value expressing what is common to them all. Value as such actually exists in the abstraction-making head only, as a reflection of the features which commodity has in common with money, profit, rent, wages, capital, etc. That generic concept comprising in itself all the particular categories, is value.

Here Ricardo reasoned in the spirit of contemporary nominalist logic rebelling against medieval realism, against creationist conceptions according to which the general, say, animal in general, existed before the horse, the fox, the cow, the hare, before the particular species of animals and was subsequently transformed or 'split' into the horse, the cow, the fox, the hare, etc.

According to Ricardo, value as such can only exist post rem, only as a mental abstraction from the particular kinds of value (profit, rent, wages, etc.), by no means ante rem, as an independent reality chronologically preceding its particular species (capital, profit, rent, wages, etc.). All these particular species of value eternally exist side by side with one another and by no means originate in value,

just as the horse does not actually derive from the animal in general.

The trouble was, however, that the nominalist conception of the general concept, justifiably attacking the principal proposition of medieval realism, in general eliminated from the real world of individual things, along with that proposition, the idea of their real development.

Inasmuch as Ricardo held the bourgeois view of the essence of bourgeois economy, the one-sided and extremely metaphysical conception of nominalism in logic appeared to him to be most natural and appropriate. Only individual phenomena belonging to the particular species of value existed eternally – commodity, money, capital, profit, rent, etc. As for value, it was an abstraction from these individual and particular economic phenomena – universalia post rem, by no means universalia ante rem. That was why Ricardo did not study value as such, value in itself, most rigorously abstracted from profit, wages, rent, and competition.

Having formulated the concept of value, he proceeded directly to the consideration of developed particular categories, directly applying the value concept to profit, wages, rent, money, etc.

That is the most natural logical move if one conceives reality reproduced by means of it as an eternal system of interaction of particular species of value.

If the content of the universal concept underlying the entire system of the theory is to be understood as a sum of features abstractly common to all particular and individual phenomena, one will necessarily act as Ricardo did. If the universal is understood as the abstract feature common to all individual and particular phenomena without exception, to obtain theoretical definitions of value one will have to consider profit, rent, etc., and abstract what is common to them. That was the way Ricardo acted. And that was what Marx sharply criticised him for, since here Ricardo's anti-historical approach to value and its species was particularly apparent.

The greatest defect of Ricardo's method of inquiry, according to Marx, lay in that he did not study specially the theoretical definitions of value as such completely independent from the effects of production of surplus-value, competition, profit, wages, and all the other phenomena. The first chapter of Ricardo's principal work treats not only of exchange of one commodity for another (that is, of the elementary form of value, value as such), but also of profit, wages, capital, the average rate of profit, and the like.

'One can see that though Ricardo is accused of being too abstract, one would be justified in accusing him of the opposite: lack of the power of abstraction, inability, when dealing with the values of commodities, to forget profits, a factor which confronts him as a result of competition.' [Theories of Surplus-Value II]

But this requirement, the requirement of objective completeness of abstraction, is impossible to satisfy unless, first, one gives up the formal metaphysical conception of the universal concept (as a simple abstraction from the particular and individual phenomena to which it refers), and second, one accepts the standpoint of historicism in the conception, in this instance, of the development from value to profit.

Marx demands from science that it should comprehend the economic system as a

system that has emerged and developed, he demands that the logical development of categories should reproduce the actual history of the emergence and unfolding of the system.

If that is so, value as the starting point of theoretical conception should be understood in science as an objective economic reality emerging and existing before such phenomena as profit, capital, wages, rent, etc., can emerge and exist. Therefore theoretical definitions of value should also be obtained in quite a different manner than mere abstraction of the features common to commodity, money, capital, profit, wages, and rent. All these things are assumed to be non-existent. They did not exist eternally at all, but somehow and at some point did emerge, and this emergence, in its necessity, should be discovered by science.

Value is a real, objective condition without which neither capital nor money nor anything else is possible. Theoretical definitions of value as such can only be obtained by considering a certain objective economic reality capable of existing before, outside, and independently of all those phenomena that later developed on its basis.

This elementary objective economic reality existed long before the emergence of capitalism and all the categories expressing its structure. This reality is direct exchange of one commodity for another commodity.

We have seen that the classics of political economy worked out the universal concept of value exactly through considering this reality, although they had no idea of the real philosophical and theoretical meaning of their acts.

One would assume that Ricardo would have been not a little perplexed if someone were to point out the fact that both his predecessors and he himself did not work out the universal category of his science by considering an abstract general rule to which all things having value are subject – on the contrary, they did so by considering a very rare exception from the rule – direct exchange of one commodity for another without money.

Inasmuch as they did so, they obtained a really objective theoretical conception of value. But, since they did not adhere strictly enough to the consideration of this particular mode of economic interaction extremely rare in developed capitalism, they could not fully grasp the essence of value.

Herein lies the dialectics of Marx's conception of the universal – the dialectics in the conception of the method of elaborating the universal category of the system of science.

It is easy to see that this conception is only possible on the basis of an essentially historical approach to the study of objective reality.

Deduction based on conscious historicism becomes the only logical form corresponding to the view of the object as historically emerging and developing rather than ready made.

'Owing to the theory of evolution, the whole classification of organisms has been taken away from induction and brought back to "deduction", to descent – one species being literally deduced from another by descent – and it is impossible to prove the theory of evolution by induction alone, since it is quite anti-inductive.' [Engels. *Dialectics of Nature*]

The horse and the cow did not of course descend from the animal in general, just as the pear and the apple are not products of self-alienation of the concept of fruit in general. But the cow and the horse undoubtedly had a common ancestor in the remote past epochs, while the apple and the pear are also products of differentiation of a form of fruit common to both of them. This actual common ancestor of the cow, the horse, the hare, the fox and all the other now existing species of animals did not of course exist in divine reason, as an idea of the animal in general, but in nature itself, as a quite real particular species, from which divers other species descended through differentiation.

This universal form of animal, animal as such, if you wish, is by no means an abstraction comprising in itself only that feature which is common to all the now existing particular species of animals. This universal was at the same time a particular species possessing not only and not so much those traits that were preserved in all the descendants as features common to them all, but also its own specific features, partly inherited by the descendants, partly entirely lost and replaced by new ones. The concrete image of the universal ancestor of all the species existing at present, cannot in principle be constructed out of those properties that these species have in common.

Doing this sort of thing in biology would mean taking the same wrong avenue by which Ricardo hoped to arrive at a definition of value as such, of the universal form of value, assuming that these definitions were abstractions from profit, rent, capital, and all the other particular forms of value that he observed.

The idea of development as real descent of some phenomena from others determines the dialectical materialist conception of deduction of categories of ascent from the abstract to the concrete, from the universal (which is in itself quite a definite particular) to the particular (which also expresses a universal and necessary definition of the object).

The basic universal foundation of a system of theoretical definitions (the basic concept of science) expresses, from the standpoint of dialectics, concrete theoretical definitions of quite a specific and definite typical phenomenon sensually and practically given in empirical contemplation, in social practice and experiment.

This Phenomenon is specific in that it is really (outside the theoretician's head) the starting-point of development of the analysed totality of interacting phenomena of the concrete whole which is, in the given case, that concrete whole that is the object of logical reproduction.

Science must begin with that with which real history began. Logical development of theoretical definitions must therefore express the concrete historical process of the emergence and development of the object. Logical deduction is nothing but a theoretical expression of the real historical development of the concreteness under study.

To understand this principle correctly, one must take a concrete, essentially dialectical view of the nature of historical development. This most important point of Marx's logic – his view of the relation of scientific development to historical one (the relation of the logical to the historical) must be considered specially. Without it, the method of ascent from the abstract to the concrete remains inexplicable.