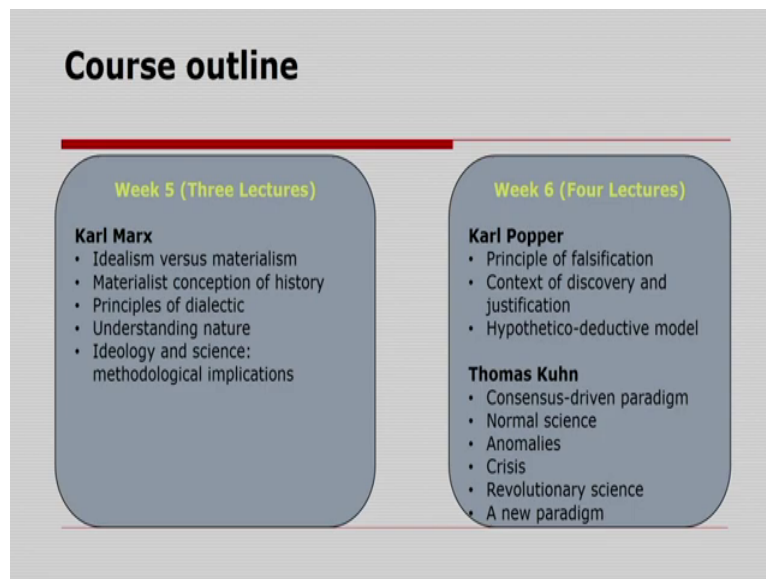


Philosophical Foundations of Social Research
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Week 5 (Karl Marx) : Lecture –13
Nature, Ideology and Science

Welcome to the 13th lecture of this Massive Open Online Course on Philosophical Foundations of Social Research. This is going to be the last lecture of the fifth week.



In the fifth week, in terms of two lectures we have already discussed Marx's delineation of the debates on controversies about idealism and materialism. Then, materialist conception of history and principles of dialectic. And in today's lecture, what we are going to do, we are going to discuss understanding ideology, understanding nature, understanding science, and what are the methodological implications. Then we will start with understanding nature, then theory of ideology, and then theory of science or knowledge.

Karl Marx

- ❑ Materialist conception of history or popularly known as historical materialism
 - ❑ Dialectic
 - ❑ Theory of ideology
 - ❑ Theory of science or knowledge
-

If you slightly recall, we have discussed Marx's materialist conception of history or popularly known as historical materialism.

Historical Materialism

- ❑ **Historical:** how particular forms of society have come into existence, and the specific historical contexts within which apparently universal or eternal social forms are located
 - ❑ **Materialism:** rejection of Hegelian idealism and the primacy of socioeconomic processes and relations
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What is historical in historical materialism and what is materialism in historical materialism, that historical entails the analysis of how particular forms of society have come into existence, and the specific historical contexts within which, apparently, universal or eternal social forms are located. We have discussed how particular forms of society, in terms of hunting and gathering economy, the slave society, the feudal society, the capitalist society, which will inevitably and unstoppably move on to socialism and thereafter communism.

And when I said apparently universal or eternal social forms, they only appear to us as universal or eternal social forms, but actually they are not- in reality they are not. They may

be state, religion and market and so on. And materialism denotes a rejection of Hegelian idealism in the primacy of socio economic processes and relations.

Historical Materialism

- 'General theory' of historical materialism:
 - Valid applicability in all of production, raw materials, instruments, relations of production, property relations, relations of 'real appropriation', labour and social formation, theory of transition between social formations, different structural levels within a mode of production, and political, ideological and economic formations

That is how we have tried to classify historical materialism under three broad spectrums, general theory of historical materialism, particular theories of historical materialism and regional theories of historical materialism.

Dialectic

- Marx: social and historical events
- Engels: extended the scope of dialectical analysis to establish it as a general law of development - social, natural and intellectual spheres
- The real world, whether of society or nature, developed according to dialectical sequences of contradiction and synthesis

When we discussed dialectic, we started with Hegelian form of three movements in terms of thesis, antithesis and synthesis, and then we moved on to Marx's delineation of dialectic to account for social and historical events. Engels extended the scope of dialectical analysis to establish it as a general law of development, that is social natural and intellectual spheres.

Then we have discussed how, drawing up on Hegel's dialectic and Feuerbach's materialism, both Engels and Marx they tried to develop dialectical in historical materialism. When Engels was deeply engrossed in the Dialectic of Nature, Marx found out their social applicability in the course of development of society.

Principles of dialectic

- ❑ Quantitative changes lead to qualitative changes and vice-versa
 - ❑ Unity and struggle (interpenetration) of opposites
 - ❑ The principle of negation of negation
-

And there are three principles of dialectic that we have already discussed. Quantitative changes lead to qualitative changes and vice versa, interpenetration of opposites unity and struggle of opposites; and the law of negation of negation and the principle of negation of negation.

Principles of dialectic

- ❑ Quantitative changes lead to qualitative changes and vice-versa
 - ❑ Unity and struggle (interpenetration) of opposites
 - ❑ The principle of negation of negation
-

And today, we are going to discuss understanding, nature, man-nature relationships, theory of ideology and theory of science. Human history is a part of history of nature. When I say

human history is a part of history of nature, it is basically a movement of nature developing towards man.

Marx always talked about unity of science. According to him, natural science will in time incorporate into itself the science of man, just as science of man will incorporate itself into science of nature. There will be once science. Social reality of nature and natural history of man are identical terms for Marx.

Let me give you a prefatory remark before we move further. If you look at the way nature has been conceptualized or the relationship between man and nature has been conceptualized, earlier notion was that nature controls everything. Human beings are always controlled by nature. As a consequence of which, human beings were expected to contemplate on nature, worship nature.

But with the coming in of the industrial revolution, with the changes in the mode of production, with the changes in our intellectual and political consciousness marked by modernity, and the associated institutions of modernity, what we tend to see that human beings stopped contemplating on nature, rather they started controlling nature. How?

Because nature was not regarded as a subject in the age of capitalism, nature became an object of reality. Human beings tried to control over nature, human beings tried to master over nature. That earlier contemplation phase that human beings used to contemplate on nature, we used to worship nature, there is a transition from faculty of contemplation to faculty of control in the age of capitalism.

That is why that when that transition happened, from faculty of contemplation to faculty of control, nature was earlier regarded as a subject, human being object, and now human beings are considered subjects and nature as an object of reality. And that is how human beings have started mastering over nature, have started controlling nature.

And in this sense, one must understand, there is a transition from faculty of contemplation to faculty of control. And in this sense, many perceptive thinkers, including Marx, tried to understand the dialectical relationship between man and nature, between human beings and nature.

In this sense, we are trying to trying to understand Marx's delineation of nature and man-nature relationship. Marx never studied nature as an isolated category, or Marx never studied

human beings as an isolated category. Marx always tried to study nature or human beings as complimentary to each other. There must be a dialectical relationship between nature and human beings.

Understanding nature, man-nature relationships

- Man is the immediate object of natural science and nature is the immediate object of science of man
- Sense perceptions

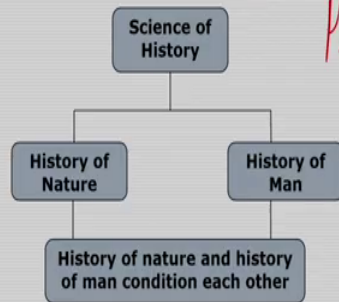
Man_A - Man_B

The slide features a title 'Understanding nature, man-nature relationships' in bold black text. Below the title is a red horizontal line. Two bullet points, each with a red square icon, follow: 'Man is the immediate object of natural science and nature is the immediate object of science of man' and 'Sense perceptions'. Below the second bullet point is a diagram consisting of a grey rounded rectangle containing the text 'Man_A - Man_B', which is circled in red. A red arrow points from the bottom of the circle back to the 'Sense perceptions' bullet point. A second red horizontal line is at the bottom of the slide.

For Marx, man is the immediate object of natural science and nature is the immediate objective science of man. Sense perceptions are the basis of all sciences, sensuousness of man is humans sensuousness. When I say sensuousness of man is human sensuousness, I mean, sensuousness is looked at only by looking at others.

Suppose man A can be known only when she or he interacts with man B. I cannot understand man A or man B as isolated categories, I will try to examine man A or man B on the basis of the kind of interaction that they have with each other. I cannot understand an individual as an isolated case : I will try to examine that individual through the ways in which that individual interacts with our economy, our culture, our polity, I mean, society at large.

Understanding nature, man-nature relationships

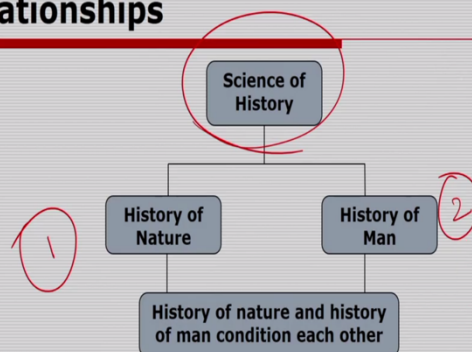


Praxis
|
Practice

And in this sense, you will find human actions change the world, change our nature. That is why by acting upon nature, human beings not only may change nature but also change themselves, social relations. That is why through human action, through human labour we tend to change the world, we tend to change the nature.

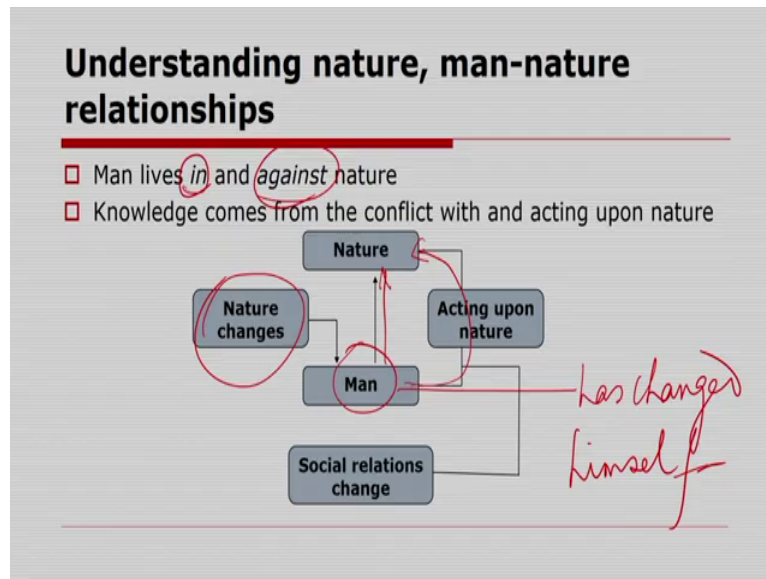
And Marx, in this context, emphasized the notion of praxis. Praxis is nothing but practice. The single science refers to the science of history for Marx. What is that science we want to talk about in the context of nature, in the context of man-nature relationships, what is that science?

Understanding nature, man-nature relationships



There cannot be any other science, but the only science that human civilization has, that is the science of history. Science of history is a composite product of history of nature, one, and

history of man, two. When I say science of history is a composite product of history of nature and history of man, and history of nature and history of man condition each other.



As nature cannot be treated as an isolated category, human beings cannot be treated as an isolated category. And in this context, Marx emphatically mentioned that man lives in and against nature. Man tries to cope with nature, in nature, and also tries to live against nature.

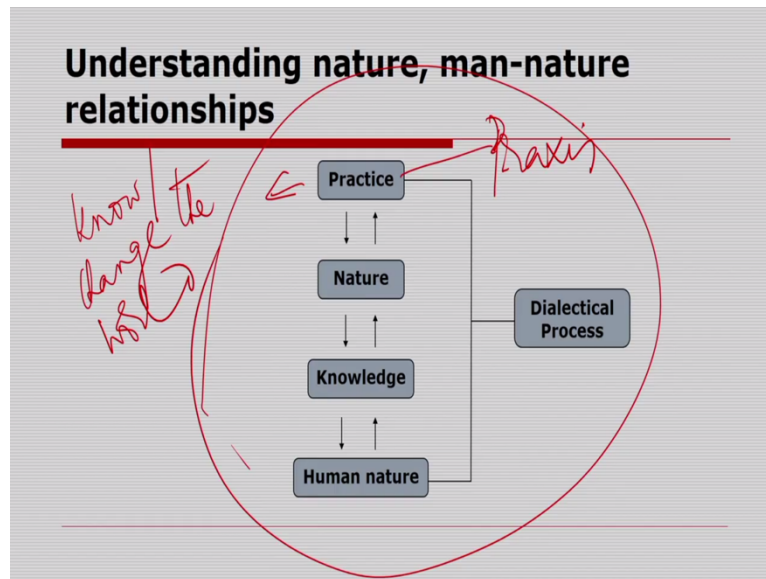
I mean, when I said men lives in nature, then human beings are sincerely natural. We are natural species, we cannot live independent of nature. But at the same time when Marx said men lives against nature, then human beings not only try to cope with nature, but also try to control over nature, try to master over nature. When human beings try to control nature or master over nature, it implies that men lives against nature, thatis why Marx said men lives in and against nature.

And science or knowledge that comes from the conflict with enacting upon nature. If you look at this then you will find that, how man tries to live in and against nature, man tries to act upon nature. And by acting upon nature man tends to change nature. And when we see that our nature has changed, in a way even man has changed himself. Human beings have changed themselves. That is why by acting upon nature human beings, not only change nature, but also change themselves.

When they change themselves not only as an individual entity we have changed but the social relations have changed. This is very important. Only as an individual entity we have changed no doubt about it, but how? But by changing ourselves we have also changed our social

relationships, economic relationships, political relationships, cultural relationships, and so on. We have always tried to do that.

I repeat that how man lives in and against nature and knowledge comes from the conflict with enacting upon nature. And by acting upon nature, human beings not only change nature, but also change themselves. And while changing themselves they also change the social relations of production.



It is only through practice, that we not only know the world, but also we know how to change the world, change our nature, change our real world phenomena. It is only through praxis, it is only through practice.

It is only through practice that we have tried to evolve our norms, rules, regulations, but once rules regulations, norms, they evolve, they also tend to change our practice- that is why you will find that we have not mentioned that there is only one way relationship between practice nature, knowledge and human nature.

There is also once human nature changes, it also tends to develop different attitudes and attitudes lead to different forms of knowledge. Once knowledge changes, our nature also changes, nature also can change the forms of practice. There is a dialectical process, there is a dialectical relationship between practice, nature, knowledge and human nature.

Primarily it is praxis through which we know and change the world, then what is that practice that we tend to do? We tend to act upon something many a time independent of the structure itself? We do not know. But it is through praxis, it is through agency, it is through action that

we tend to know the world, understand the world. Had there been no praxis, then we would not have been able to know the world, change the world.

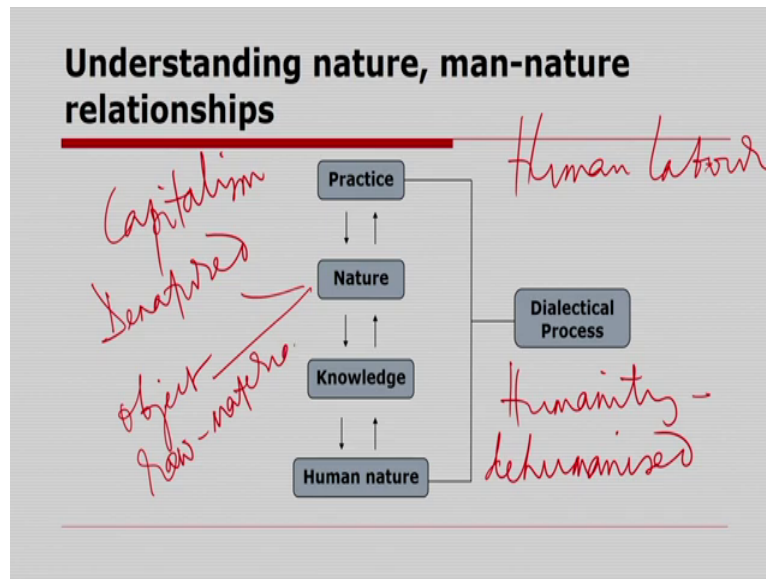
For example, Mao Zedong, he was the main leader of the People's Republic of China- when China became independent in 1949 he was the main leader. He led the socialist revolution in China, visionary revolution in China for a pretty long period of time. What he talked about Marx's version of practice?

Mao Zedong said, it is only through practice that we can enjoy the fruits of technological development. One may say that, no, we have developed technology, we have developed science, we have developed so many things, but it is only when a larger section of the population, they tend to enjoy the fruits of those technological developments, then only will we be able to say that, it is through practice that we have been able to do.

Otherwise there is no point. You may say that no x has happened, y has happened, z has happened, but if I do not use x, y, z in certain world and practice it, then there is no meaning of such x, y, z. It is only through practice that we tend to generate knowledge, we tend to know the world, we tend to change the world.

That is why Mao Zedong said that the proof of Apple is in its eating. How can I know that it is an apple? Because everybody says that it is an apple, but if I cannot taste it, if I cannot eat it, then there is no proof that this is an apple or not. It is a very conventional example that the British used to say, the taste of pudding lies in its eating. And then Mao Zedong said the proof of Apple lies in its eating.

And the dialectical process that Marx tried to develop and then Mao also tried to develop in this manner, that there is a dialectical relationship between practice or praxis, nature, knowledge and human nature.

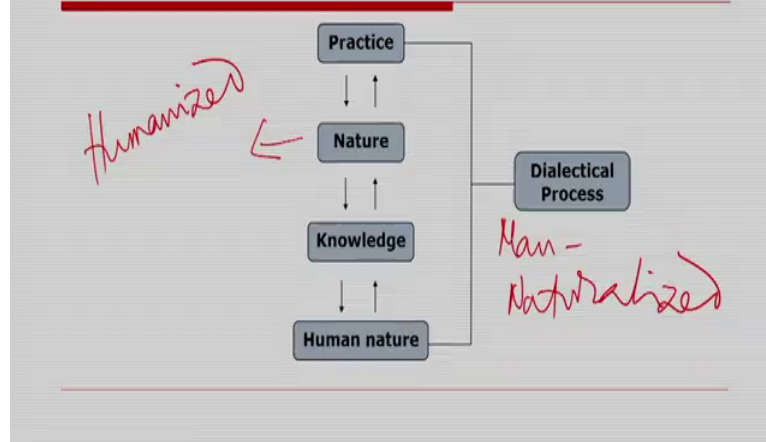


According to Mao Zedong, a multiplicity of contradictions is hierarchical in a social formation. Some principle contradictions subordinate several other contradictions. Nature, according to Marx, does not build masons, mason are essentially the products of human labour. That is why Marx mentioned at umpteen numbers of places that nature builds no masons, no locomotives, no railways, no telegraphs, it is the byproduct of human labour, human activity.

Indeed, Marx mentioned that Darwin has made God redundant and capitalism limits civilizing force of science. And in capitalism nature becomes denatured, human beings try to control nature, human beings try to master over nature; this is a part of industrial revolution, even in the 21st century you can see that how we have tried to destroy nature.

If nature becomes denatured, humanity also has become dehumanised, and nature becomes object of utility and becomes a raw material and so on.

Understanding nature, man-nature relationships



But what Marx tried to prescribe that if we cannot make a transition from capitalism to socialism and thereafter communism, then nature will become denatured, humanity becomes dehumanized already in capitalism. But there must be a superior mode of production where you will find that nature becomes humanised and human beings become naturalized. That is why capitalism limits civilising force of science. In capitalism nature becomes denatured and humanity becomes dehumanised, nature becomes a raw material or an object of reality and understanding life at a genetic level, at a molecular level will be reductionist.

Today what people say that, we have to understand life as a pool of genes, only at the genetic level, at the molecular level. And obviously, there is some kind of reductionism involved in this that technological reasoning and economic reasoning have become inseparable today. If you talk about any technology, then we always talk about economics. And such kind of reasoning becomes reductionist in nature.

Theory of Ideology

- Metaphors
 - Fantasies, illusions, reflections, inverted images, echoes of material life
 - Reality and cognitive status ~ knowledge-book-view
 - One-way causal link between material life and Ideology
 - Ideology: insubstantial epiphenomenon
 - Ideology and mode of production
- field-view

If this is the idea that Marx had while reflecting on methodological arguments in social science research, then we have to discuss Theory of Ideology by Marx. Much of Marx's and Engels' discussion on ideology is metaphorical in nature. What is a metaphor?

A metaphor refers to the similar characteristics that at least two variables will have, but actually they are not identical terms. If I say Virat Kohli runs like a hare, runs like a deer because he runs very fast. AB de Villiers runs like a deer, hare. In this case, they have the similar characteristics that they run very fast, but they are not deer and Virat Kohli and hare and AB de Villiers and deer are not identical terms. They are just metaphors. We try to capture them metaphorically.

And in this sense, according to Marx, ideologies are nothing but fantasies, illusions, reflections, inverted images, echoes of material life and so on. Many but not all of these metaphors contain two thesis about ideology. One thesis concerns its status as a reality and the other its status as knowledge. There must be complementary relationship between these two- they must constitute a symbiotic relations.

For Marx, there are always one way causal links between material life and ideology. Material life, mode of production, they always try to determine what kind of ideology that people are going to have. For Marx, there are always one way causal links between material life and ideology. And that ideology is nothing but an insubstantial epiphenomenon for Marx.

Materialism: 'thoughts' - phenomena
Theory of Ideology material life' - essence

- Metaphors
- Fantasies, illusions, reflections, inverted images, echoes of material life
- Reality and cognitive status
- One-way causal link between material life and ideology
- Ideology: insubstantial epiphenomenon
- Ideology and mode of production

Mode of production

Independent variable

Dependent variable

What is that insubstantial epiphenomenon? Insubstantial epiphenomenon means a reflection which depicts but does not affect the course of real historical life. That is why according to Marx, ideology is an insubstantial epiphenomenon, that is a reflection which only depicts, but does not affect the course of real historical life. That is why material life is more important than ideology, material life determines what kind of ideology that we are going to have.

In the German Ideology, Marx said that materialism consists in asserting that thoughts are the phenomena and material life is their essence. But idealism suggested that no, material life is the phenomenon and thoughts are its essence. And materialism suggests that thoughts are the phenomena and material life their essence as against the idealists assertion of the converse.

The later formulations in the world, so for example, Lukacs and others, their determination in the last instance and relative autonomy of the superstructures are clearly the attempts to correct the lapses into economic reductionism. If ideology is a dependent variable for Marx, material life is an independent variable, this is very important.

But Marx was very much clear about the relationship between material life and ideology. That is why he said that ideology cannot be an independent variable. That is why I always mentioned that Marx must be examined, Marx must be evaluated not simply as an ideologue of the Communist Party but also as a top notch theoretician.

According to Marx, in quest of truth, in quest of knowledge, one has to go beyond the narrow confinements of his or her ideology. Even Marx said this while dwelling upon ideologies in general, and the German Ideology in particular. That is why it is very important that much of Marx and Engels discussion on ideology, which is metaphorical in character, that is why as a

theoretician, as a theorist, Marx suggests that ideologies are fantasies, illusions, reflections, inverted images, and echoes of material life.

Many, but not all of these metaphors contain two thesis about ideology. One thesis concerns the status of ideology as a reality and the other as a status as knowledge, or it is cognitive status. If you look at Marx's writings that for Marx there are only one way causal links between material life and ideology, that ideologies and insubstantial phenomena.

In the German Ideology, Marx said that what is that insubstantial epiphenomenon, that a reflection which depicts but does not affect the course of real historical life. And in the German Ideology, Marx said that materialism consists in asserting that thoughts are the phenomenon and material life their essence as against the idealists' assertion of the converse. The later formulations, determination in the last instance and relative autonomy of the superstructures are clearly the attempt to correct the lapses into economic reductionism.

If ideology is a dependent variable, then mode of production or material life becomes an independent variable. However, in quest of truth, in quest of knowledge, one has to purge upon, one has to go beyond the narrow confinements of ideologies, his or her ideology. Even Marx said this while dwelling up on ideologies in general and the German Ideology in particular.

1 The German Ideology
2 The Methods of Political Economy

Theory of Science

1. The positive science of history is the 'representation of the practical activity, of the practical process of development of men'.
2. This representation, or depiction, consists in the observation and arrangement of historical material, under the guidance of certain 'premises', which are themselves to be 'made evident' by the study of the material life of each historical epoch.
3. Premises, in this sense, are the 'axioms' or 'first principles' of the theoretical system of history

And that is how Marx becomes a theorist, Marx tries to go beyond the narrow confinements of his ideology as an ideologue of the Communist Party. And then Marx as a theorist, Marx as a theoretician tries to look at the Theory of Science. Because he always talked about unity of science, if you can slightly recall.

Marx's Theory of Science can be understood by analyzing and examining two of Marx's texts on scientific methodology. What are these? Now, one is the German Ideology; and secondly, the Methods of Political Economy.

German Ideology and the Methods of Political Economy, from these two texts six arguments follow, six thesis follow. These two texts are very important so far as the scientific methodology is concerned by Marx.

What are those six thesis? For Marx, the positive science of history is the representation of the practical activity or the practical process of development of man. Then whatever we do, it must be found at the level of praxis.

As we have seen in the case of positivism, in the case of inductivism and so on that science must start with observations, experience and so on, as hypothesisism said that science must start with a hypothesis. For Marx, it is only through practical activity of the practical process of development of human beings that we talk about positive science of history.

Then if the first one is the positive science of history is the representation of the practical activity of the practical process of development of man, then this representation or depiction consists in the observation and arrangement of historical material under the guidance of certain premises, which are themselves to be made evident by the study of the material life of each historical epoch.

That is why these premises, these axioms, or the first principles of the theoretical system of history, when you look at this, And these premises are historically conditioned. The kind of premise that we had seen in the 20th century, even 30 years back or 20 years back, we donot see those premises today. Premises change over time, our axioms change over time across space and so on.

That is why this representation, this representation of practical activity of the practical process of development of man or such depiction of practical activity of the practical process of development of man consists in the observation and arrangement of historical material, under the guidance of certain premises which are themselves to be made evident.

That is why they are called the first principles or axioms, which are themselves to be made evident by the study of the material life of each historical epoch. Premises, in this sense, are the axioms or first principles of the theoretical system of history. This is important. Axioms,

the first principles. Why they are first principles or axioms? Precisely because they are themselves to be made evident by the study of the material life of each historical epoch, whether it is slavery or feudalism or capitalism and so on.

Theory of Science

4. The term, 'premises' refers to 'starting points' in the real world from which the concrete study of history must proceed. These 'premises' are basic facts of social life: the real individuals, their activity and the material conditions under which they live. These premises – the 'given', the 'raw data' – of scientific historical investigation can be 'verified in a purely empirical way', and are 'empirically perceptible'.
5. The materialist method differs from that of the empiricists for whom history is 'a collection of dead facts'.
6. (a) The materialist method is not speculative as metaphysicists do. Instead, it starts with observable and verifiable facts.
(b) The premises of metaphysics (philosophy) 'govern' empirical investigations.

The term premises refers to starting points in the real world from which the concrete study of history must proceed. And these premises are basic facts of social life, the real individuals, their activity and the material conditions under which they live. These premises, given the raw data of scientific historical investigation can be verified in a purely empirical way, and are empirically perceptible.

Then Marx's method goes back to empiricism, inductivism -empirical that it must start with observations, it must start with experience, it must start with practice and so on- and it goes back to positivism that it must be verified in a purely empirical way, that if you slightly recall, we have discussed what is the hallmark of science according to positivists, that the hallmark of science lies in the fact that all scientific statements must be systematically verifiable.

That is why, so far as Marx's method is concerned, the premises that he talks about, he tries to foreground the premises as axioms, as first principles of the theoretical system of history. These premises become the starting points in the real world from which the concrete study of history must proceed.

And these premises are basic facts of social life, the real individuals, their activity and the material conditions under which they live. And these premises, given the raw data of

scientific historical investigation can be verified in a purely empirical way, and they are empirically perceptible.

Then does it imply that Marxist method is nothing but empirical method or positivistic method? Or one can say that, as he was so much about science, about material life and so on, was he just, I mean, was Marxist method only rationalist in nature? No. It is much beyond that.

For Marx, as he propounded the materialist method, the materialist method differs from that of the empiricists, because for the empiricists history is a collection of dead facts. That is why Marx always emphasized that, we not only try to interpret the world, but main thing is to change the world. That is the Thesis 11, the thesis on Feuerbach, that the philosophers have only interpreted the world in various ways, the point however is to change it. That is why the materialist method tries to change the world, not simply interpret the world but also try to change the world.

It does not imply that interpretation is not important- interpretation is extremely important. But what the Marx's materialist method suggests that, we must go beyond interpretation and we must try to change the world. Change the world, change nature; it is only through practice we can change the world, we can know the world as well as change the world.

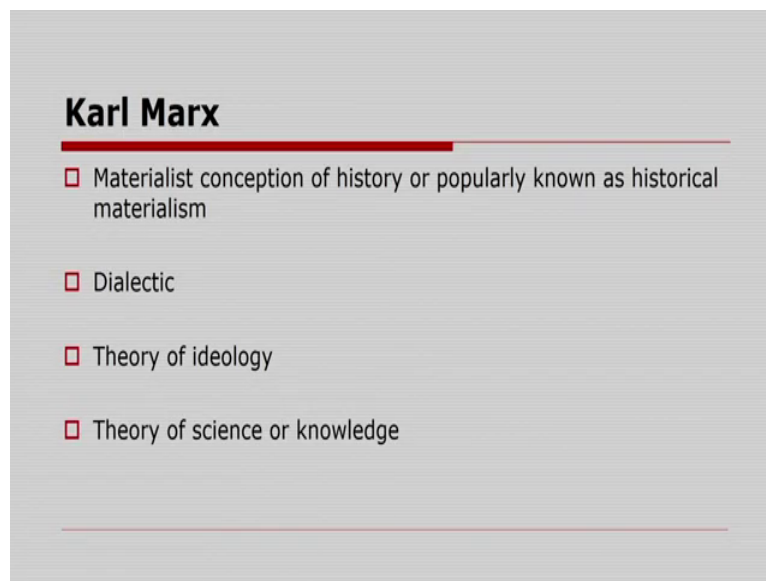
Then where empiricists have faltered? Now, what have empiricists done for Marx? For empiricist, history is a collection of dead facts. They only try to capture reality, but they do not know how to change the world. One, he made a scathing attack on positivists and empiricists.

Then Marx suggested that the materialist method is not speculative, as metaphysicists do. Instead, it starts with observable and verifiable facts. When he said that the materialist method is not speculative as metaphysicists- if you slightly recall, we have discussed metaphysical stage in Comte's Law of Stages, theological stage, metaphysical stage, positivistic or scientific stage.

Whether the proponents of theological stage or metaphysical stage, they always tried to speculate, especially metaphysicists, they always try to speculate. If I am teaching in this life, then in the other life what I will do, that is speculation. But the materialist method does not engage in this kind of thing.

The materialist method, rather, always starts with observable and verifiable facts. It is not speculative in nature. And the premises, the axioms, the first principles of the theoretical system of history upon which metaphysics and broadly philosophies has been based, govern empirical investigations. They donot want to change it. In this sense, the materialist method propounded by Marx is different from that of empiricists, as well as metaphysicists.

We are going to complete the lectures of the fifth week, I mean, all 13 lectures are over. I mean, from the next week, we are going to have the 14th one, Karl Popper and Thomas Kuhn, we will discuss.



But what we have discussed in this week, that we have discussed Marx's materialist conception of history, popularly known as historical materialism, and we have discussed what is historical in historical materialism and materialism in historical materialism. Then we have discussed how we have classified historical materialism into three important arenas, one is the general theory of historical materialism, then particular theories of historical materialism and regional theories of historical materialism.

Then we have discussed the principles of dialectic, how quantitative changes lead to qualitative changes and vice versa. Interpenetration of the opposites, unity and struggle of opposites, and then we have discussed the law of negation of negation or the principle of negation of negation.

And then we have discussed Marx's understanding of nature, man-nature relationships, how we have made a transition from faculty of contemplation to faculty of control, because earlier nature was regarded as the subject and human beings were regarded as objects of utility.

Earlier notion was that nature controls human behaviour, human action, that is why human beings were expected to contemplate on nature, human beings were expected to worship nature, nature could not be questioned or so.

But with the coming in of capitalism, modernity, industrial revolution and so on, what we tend to see that human beings started controlling nature, human beings started mastering over nature. And thereby we tend to see a transition from faculty of contemplation to faculty of control. I mean, when we say the transition has happened from faculty of contemplation to faculty of control, I mean, in capitalism, human beings are regarded as subjects, whereas nature is regarded as your raw material as an object of utility.

If you look at this, then we have moved on to theory of ideology, and we have discussed, how ideology is fantasies, illusions, reflections, inverted images, echoes of material life and so on. And how ideology is an insubstantial epiphenomenon in Marx's schema, Marx's scientific methodology, and according to him, in quest of truth, in quest of knowledge one has to go beyond the narrow confinements of her or his ideology.

And then we have discussed Theory of Science or Theory of Knowledge on the basis of Marx's two important works; one is the German Ideology, and the Methods of Political Economy. And there we have discussed how the positive science of history is a representation of the practical activity, of the practical process of development of human beings or men. This representation or depicts and consists in the observation and arrangement of historical material, under the guidance of certain premises, which are themselves to be made evident by the study of the material life of each historical epoch.

And premises in this sense are axioms or the first principles of the theoretical system of history. And we have also discussed how the term premises refers to the starting points in the real world from which the concrete study of history must proceed. These premises are basic facts of social life, the real individuals, their activity and the material conditions under which they live, and these premises, given the raw data of scientific historical investigation can be verified in a purely empirical way and are empirically perceptible.

We have also discussed how the Marxist materialist method differs from that of the empiricists for whom history is a collection of dead facts. And last but not the least, as we have discussed, how Marxist materialist method is not speculative as metaphysicists do.

Instead, Marx's materialist method always starts with observable and verifiable facts. And the premises of metaphysics are broadly philosophy govern empirical investigations.

Course outline

Week 5 (Three Lectures)

Karl Marx

- Idealism versus materialism
- Materialist conception of history
- Principles of dialectic
- Understanding nature
- Ideology and science: methodological implications

Week 6 (Four Lectures)

Karl Popper

- Principle of falsification
- Context of discovery and justification
- Hypothetico-deductive model

Thomas Kuhn

- Consensus-driven paradigm
- Normal science
- Anomalies
- Crisis
- Revolutionary science
- A new paradigm

And we are going to enter the sixth week from the next lecture. And in the sixth week we will have four lectures; two on Karl Popper and two on Thomas Kuhn. We are going to discuss the debates within philosophy of science broadly and social science research in particular. I mean, these debates between Popper and Kuhn, they are considered one of the most intellectually stimulating controversial debates within philosophy of science in particular and social science research in general.

We will have two lectures each on Karl Popper and Thomas Kuhn. And in Popper we are going to discuss principle of falsification, context of discovery and justification, hypothetico deductive model, verisimilitude and so on. And in Kuhn, we are going to discuss how paradigms change, how we tend to forge a paradigm on the basis of a consensus. And Kuhnian model of scientific method- if you look at this then you will find that every major science passes through two important phases one is pre paradigmatic phase and the other paradigmatic phase.

And the transition from pre paradigmatic stage to paradigmatic stage is marked by forging some kind of consensus, some kind of uniformity of practice. Within a paradigm we will find normal science, not bound science, then we will find anomalies, unexpected or unanticipated occurrences or happenings, then crisis. And then we will arrive at a new paradigm mediated by a revolutionary sense. Then in the 14th and 15th lecture, we are going to discuss Popper and in this 16th and 17th lecture we are going to discuss Kuhn. Thank you.