INDIAN INSTITUTE OF TECHNOLOGY GUWAHATI

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NPTEL ONLINE CERTIFICATION COURSE
An initiative of MHRD

Science, Technology and Society

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Now let us discuss what we have covered till if you look at the ontological questions I mean we started with ontological questions then we moved onto what thought to be okay in the form of the social institution of science I mean the ethos of modern science by martini namely universalism, communism, disinterestedness and are and organized skepticism okay if you look at them and then the way we move to the methods of science and the kind of methods of science that we have discussed I mean inductive in hypothesis region and positive region okay.

Now from now onward we will start discussing the wave post positivistic terms within HDS within philosophy of science history of science, sociology of science okay then who are the prominent players who are the prominent authors okay in the post positivistic terms they are called popper and Thomas Kuhn and also Polfired like a toss and many others are there but for the sake of this course the way we have designed we will discuss popper and Kuhn fair okay in fact if you look at the controversies between popper and Kuhn you will find that perhaps the debates between popper and Kuhn.

At the most significant once in the 20th century philosophy of science in fact these two paradigms of thought they dominated not only the latter half of the 20th century but even in 2017 okay the debate is not over even after that demise and they were excellent historians and philosophers of science who could rule the world in terms of the methods of science the perspectives of science and so on even if I say Darwin Charles Darwin provided a paradigm in the biological sciences Freud provided a paradigm in psychology okay.
Marx provided a paradigm and in the humanities and social sciences then popper and kun provided two paradigms of thought in science technology and sociology which are very

dominant even today and the way they try to defend the method and the way the follower their followers also tried to defend them okay and the and the critics to know both popper and Kuhn will find that will their critics.

They have not yet been able to create walls so that they can be ignored even today okay what we have done I mean if you look at in the ontological questions we started with technology science and the relationship between science and technology and the relationship between technology and science on the one hand and society on the other hand then we provided three models or three perspectives on HDS okay namely the linear model the inter actionist model and the embedded model.

The linear model suggests that no science leads to the development of technology leads to the development of society whereas the integrationist model suggests that no society also leads to the development of Technology and science actually but there is a similarity between these two models that we have already discussed that both these models the trade science technology and society are separate entities whereas the embedded model suggests that the relationship between science and technology is symbiotic in nature both times and technology as two forces of production.

They are not autonomous activities they are not isolated activities rather they are very much a part of social formation okay thereby we challenge the question under the idea of technological determinism that technology determines our economic culture and politics or changes occur because of technological interventions and so on okay now if you if you look at that the kind of transition that we have made because your changes in the modes of production because of the rise in our intellectual and political consciousness and so on.

If you look at this then what the kind of changes that we see today I mean the cognitive and political changes and they have significant implications on the way we view supposed nature culture environment health agriculture and so on and from being inter logical questions we came to some normative questions in the in the form of normative structure of science in the in the form of institutional imperatives of science in the form of etiology of modern times by Robert Martin.

I mean it was your science on is effectively toned complex of values and norms which is held to be binding on the banner of science and these norms are expressed in the in the form of my prescriptions preferences and permissions we have discussed I mean prescriptions when I said I mean a broad normative framework prescriptions are norms which are legally bound preferences are motivational norms motivational ideals motivational badge where as permissions they come under the institutional norms, institutional values, institutional ideals and institutional mandates or the whole.

And from there on what we try to do what we try to do that we try to delineate for institutional imperative for ethos of modern science namely universal religion communism disinterestedness and organized contestable when we discussed Martone Alito's of science with mainly focused on the goals of what must be what should be the objectives of science that is why I said normative or prescriptive framework prescriptive structure of science okay now from the ontological questions to the normative question now we are coming to the methodological questions okay.

Now the methodological questions that we see today they are very important but perhaps among those for ethos of modern science that is why I said earlier that universalism, communisms, and disinterestedness they refer to the goals of science where organized skepticism refers to not only the goal of science but also a methodological rationale which is very important in the context of science and it is practitioners okay I mean you need to temporarily suspend your judgment you need to push people postponing your judgment until and unless all facts at a time.

And that is what science is distinct from all areas of human activity or in creativity because it possesses a method in it is methodological as we have already discussed in the context of the central tenets of topology within the methods of science we have discussed inductivism, hypothesis and positivism as we discussed that since this the server I mean from 17th century till 19th century I mean this these three centuries okay we are dominated by schools of inductivism as well as hypothesis I mean that is it Harold the birth of modern philosophy of science okay when you look at these okay.

And positivism is your 20th century phenomenon okay when we look at these okay as we have already discussed that and know inductivism is rotating impreciseness again impreciseness is rotated in experience okay it always starts I mean signs must start with observation science must remain at the level of observers and science must end with observation we as in the hypothesis

schema science start only when we go beyond observation on account of which science becomes trance observationally in nature in the context of hypothesis schema.

Okay and both why it is trance observational in the hypothesis schema because hypothesis maintain I mean including Rene Descartes who said positive will go some I think therefore I am I doubt therefore I am okay I mean my existence my own self is very much contingent upon the way I think the way I question the way I doubt it is important to understand okay science always starts with the hypothesis for decade for cotillion philosophy of science but in the inductive schema in the Beconian model of science that no science always starts with observation okay.

And these controversies remained for a long period of time and today also people all even scientists themselves they argue it either in favor of either of these perspectives no doubt about that okay and then what we then what we discussed that how inductive is looked at certainty and breath as the hallmarks of scientific knowledge and hypothesis looked at and looked up on novelty and depth as the hallmarks of scientific.

And I mean when we say this then it becomes I mean hypothesis why they said that no it must be novelty and depth it must be new and it must have deeper entities and processes precisely because for them no observation is pre supposition list we will come to this we have already discussed this but again and again we have to come back to this but it is very important to understand this okay.

Suppose if I say as I told you earlier that suppose this space in this space will also have electron proton but we simply cannot observe this we deploy our rational understanding or rationality to make these two to explain the existence of proton and electron even in this but you just cannot observe it okay because hypothesis is grounded in rationalism is based on reasoning capacity in this and then what we try to do is that from this we came to a stage where all methodological tented characteristics were organized by the by the proponents of positivism.

When whenever I come to whenever we try to discuss positive positivism must be discussed in a certain context of the transition from theological stage to mythological stage to positivistic of scientific stages theological stage suggests that change is occur because of the changes in the supernatural forces where as mean you attribute any kind of change to changes in the

supernatural forces you changes in terms of I mean not this worldly phenomena but the otherworldly phenomena okay.

Which science does not believe and mythological state suggests that no changes do not occur because of the changes of supernatural forces but changes occurred because of natural intervals nature always dictates us to make changes for it is positivistic or scientific state suggest that no it is not simply nature dictates but human action human beings human I mean social actors okay they determine what kind of nature we are going to okay that is why we discussed how there is a transition from Faculty of contemplation to Faculty of control okay.

And we not only contemplate on nature but also control it that is then we discussed central tenets of positivism that when I said if you look at this central tenets of positivism that methodological okay.

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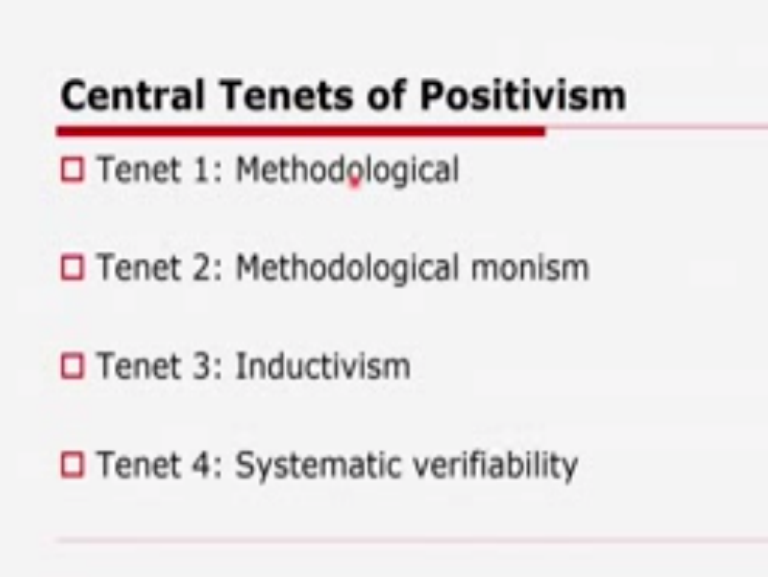

That we said that that science is distinct from all areas of human activity or creativity okay now because it possesses a method need to it why positively under what circumstances positivism emerged positivism emerged positivism stood squarely against the theology idealized methodologists emerged in the context of the Industrial revolution in the context of the debates on modernity critical thinking a reasoning capacity not and the capacity to interrogate the capacity to post questions.

If I cannot question then that is not the motto of science the motor of science lies in the way I must be able to raise questions post questions this is very important okay then positivists are even positivism emerged in the context of challenging the dominance of religion and especially in the context of the dominance of church video perhaps in India we have not yet come to a point of this okay that way but it does not imply that there is only one form of enlightenment we see multiple modalities alternative modalities.

That is a different story all together I mean it is a different discourse all together we will see I mean in the context of post structuralism post-modernism I will see we always witness that how that there is no be enlightenment the modernity that is we may say that the kind of enlightenment you Europe witnessed may be Latin America Africa is here they will witness different source of enlightenment.

But the kind of instrumental rationality goal-oriented purpose oriented social action objective oriented social action that we try to understand okay and positivism provided us with this kind of a framework then the second did it that we, we discussed that is methodologically managing okay that there is only one method common to all sciences irrespective of their subject matter then we discussed inductivism.

That the method of science is the method of induction then we discussed systematic verifiability that the hallmark of science consists in the fact that all scientific statements must be systematically verifiable then we discuss how observations are or can be shown pure okay in the sense that observations are theory independent in the positivist extreme okay and then we said observations as observations are pure there cannot be doubted their individual in nature.

There is always a one-way relationship that is always a unilateral relationship between observation and theory that observation leads to true reformation where as Theory firmness and

does not lead to observation in the positivist extreme then we discussed fact value dichotomy that fact do not have any value content and me I mean their value neutral whereas values do not have any factual content.

There is always a dichotomy between fact and value if I say as I gave you the example that this is your laptop this is your fact if I say this laptop looks beautiful or ugly then I add value to it okay that is why this whether the laptop looks beautiful or ugly does not come under the purview of science okay it is very important to understand this film okay science always beliefs impacts whether this is this is a laptop this is a fact but no value commitment that is well fine and the paradigm is the paradigm I do one of the paradigms of knowledge production does not add ideas to any value commitments okay.

That is right and then all explanation must involve deduction now as you have discussed I mean so now in a very in a nutshell we see and then we discussed how observations presuppose theory and the counterpoint to this kind of proposition which positive means that how observations do not I mean, I mean observations presuppose Theory as well as the counter-arguments to observations expressive positive okay.

I mean both yeah I mean observations presuppose theory as it was propagated by the positivist then we will see how it was we also discussed how it was I mean a critique was brought about okay there we, we discussed how or no observation is presupposition list observation is always pure again precisely because whenever whatever observations that we make okay it always involves some amount of some element of selection on what basis we select silicon is based on cultural relevance.

As Weber said it when I say selection is based on cultural relevance and, and then my observations are not independent my observations are not here they are always backed by certain cultural artifacts certain you know ideology certain theories then when I then we have also discussed how observation does not provide us with a language or idiom for expression whereas theory provides us with a language or an or an Indian for experience.

That is an account of which we discussed how observations or no observation is presupposition okay as positivist study this argument against positivism was bolstered by were strengthened by carhop okay before discussing before starting the discussion on property and methodology okay

let us quickly see what are the steps that inductivism hypothesism and positivism they follow okay.

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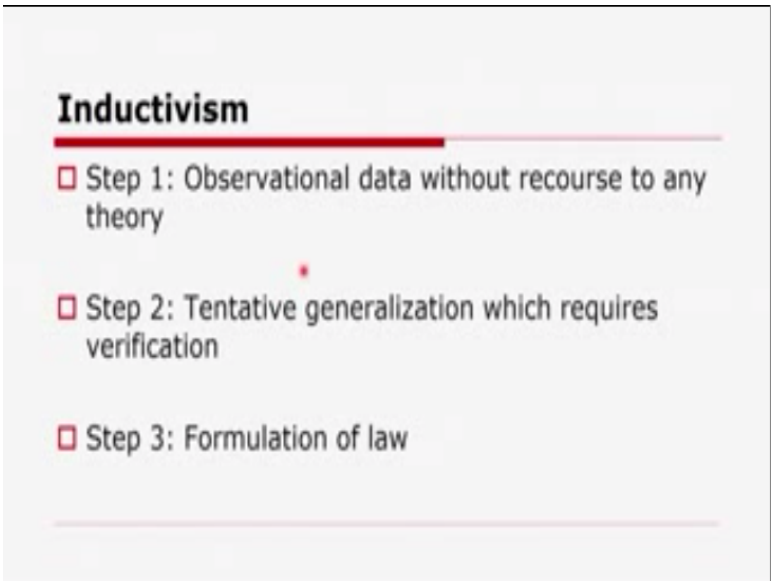

Inductive engine starts with observational date I mean in divisions suggests that science must start with observational data we do not recourse to any choice observational data this is very important step two we must provide a tentative generalization which requires verification and then we come to we then to formulate along that is the first even it is a observationally data okay I can to observe I will say that no Socrates is motor then what kind of tentative generalization I will provide I will say Socrates is your man which requires verification Socrates made you safe may be or Tiger.

I do not know that is why that the Socrates is a man has to be verified this is very important if I can verify that then, then I tend to formulate that okay in the context of that these are the three steps in hypothesis, hypothesis argue the science always start with a hypothesis what is the

hypothesis it is a tentative solution to a problem or hunch if you look at this okay and if you take a tentative solution to a problem or hunch.

What we generally do we generally tend to test our hypothesis whether it is right or wrong in research what, what we noticed in general let us that most of the scholars they try to prove or disprove their iPod which is ethically wrong you should test your hypothesis whether it is right or wrong hypothesis should be tested right or wrong hypothesis should not be proved or disproved.

If one is diehard in proving or disproving his or her hypothesis then it hindered the tradition of cumulative knowledge production if your diehard in proving or disproving your hypothesis then you will try to manipulate the data which is not advisable which is scorned which is not ethically correct to do in this and once a hypothesis is tested right or wrong if it is your wrong one then we must reject it okay so we must reject the hypothesis.

And if the hypothesis is pasted right then we must accept in the hypothesis in a positivistic we must sign first start with observation then from that observation the second step depict how we can arrive at a set of launch the third step I mean a set of laws in the form of pre mind number one okay the third step suggest a set of statements describe inginitial conditions you can see here okay I mean the prima is number one a set of launched premised number two a set of statements describing initial conditions.

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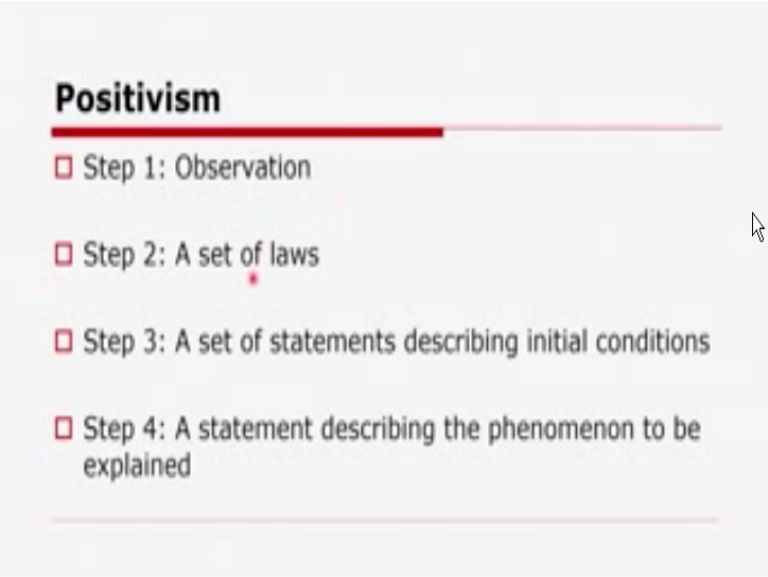

And the kind of conclusion that we make that a statement I mean that is the explanation in the form of a statement describing the phenomenon to be explained yes why we say all men are mortal okay.

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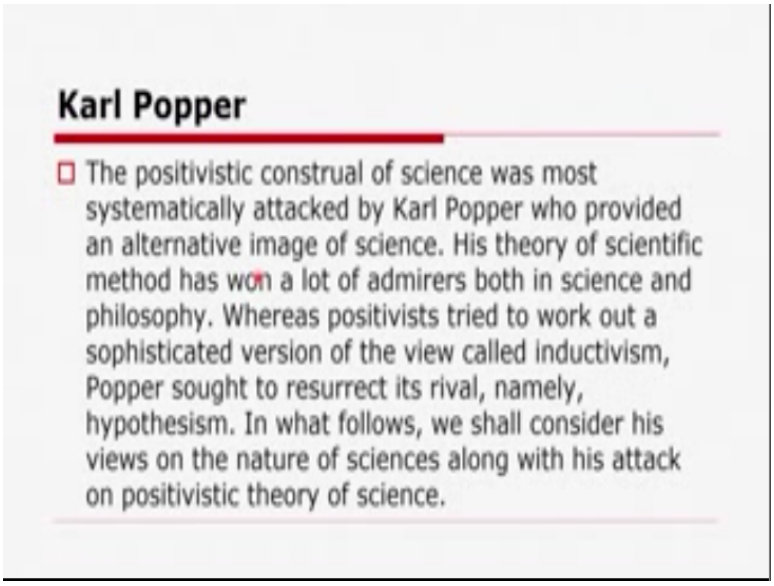

And this positivistic control of science okay was most systematically attacked by Karl Popper okay who is very much influenced by Max Weber okay I mean the Venus school we also say verstehen school of thought verstehen means understanding in German language this research positivistic control of science was most systematically attacked by Karl Popper okay Karl Popper who provided an alternative image of science his theory of scientific method has won a lot of admirers both in science as well as philosophy okay.

That is why I said earlier that the science is a natural philosophy and the way philosophy I mean ethics when ethics was in combined with a natural philosophy I mean that epistemology then it became philosophy of science that is a I mean science and philosophy I mean natural philosophy and modern philosophy okay we are edge positivists try to work out a sophisticated version of the view called inductivism popper start to resurrected Schreiber namely hypothesism in what follows.

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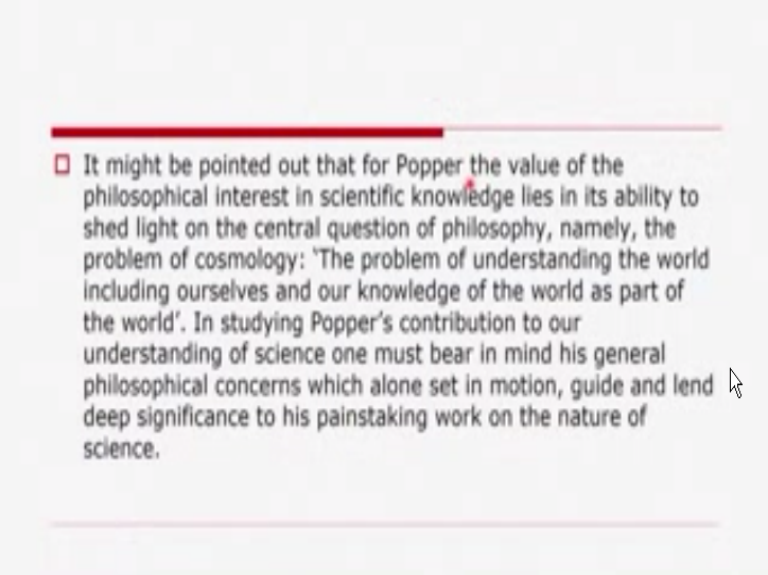

We shall consider poppers huge or nature of Sciences along with is attack on the positivistic theory of science it might be pointed out that for people the value of the philosophical interest in scientific knowledge lies in its ability to stay right on the central question of the laws then what is the central question of philosophy for the problem of cosmology what is the problem of cosmology with the problem of understanding the world including ourselves and our knowledge of the world as part of the world.

I mean if, if we want to understand the world we cannot be isolated phenomena we must be a part of the world to understand the world and the changes which occur in that okay in studying poppers contribution to our understanding of science one must bear in mind his general philosophical concerns which alone set in motion guide and length deep significance to his pen staking work on the nature of science okay.

This is an important question then for people what is the starting point of philosophy what is the problem of philosophy the problem of cosmology and such philosophical inquiry into the nature of scientific method according to purpose must confine itself to the manner in which scientific theories are evaluated when I say evaluated I mean in hand victories are accepted or rejected and popper refuses to consider as legitimate and the inquiry into the way.

In which these theories are arrived at therefore according to popper philosophy of science must first confine itself to the context of justification and refuse to say and anything about the context of discussion what is context of justification and context of discussion will offer considers the

creative process in and through which scientific ideas are generated to be unimpeded to any rational explanation.

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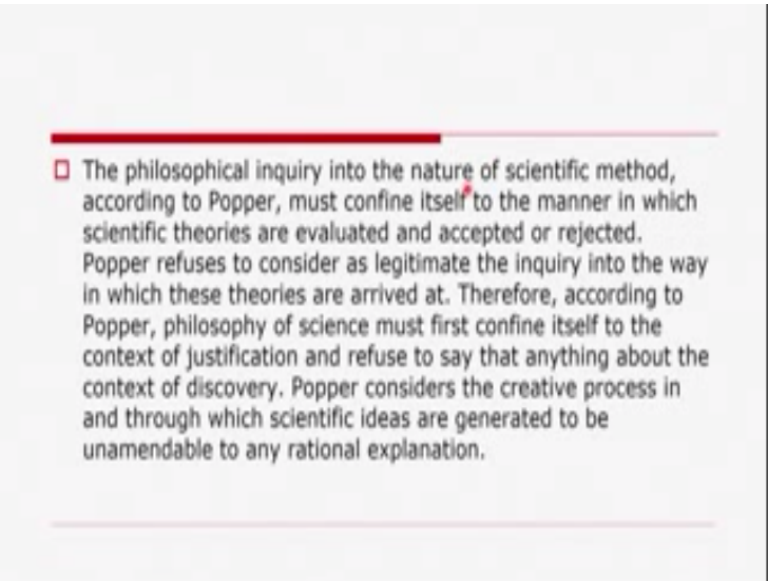

This is the first one then the what is the first how did we start the, the problem of cosmology I mean the central question of philosophy that is the program of cosmology and the first one he referred to that that philosophy of science must confine itself to the context of justification not the context of discovery anyway okay.

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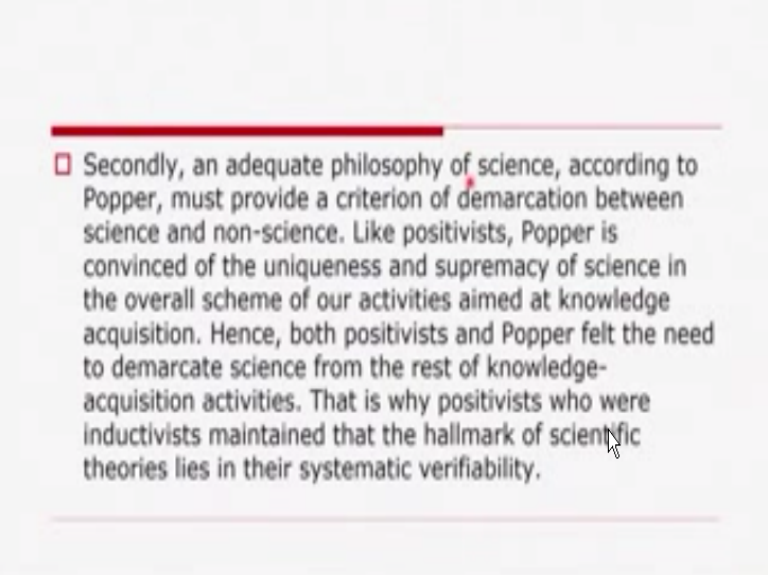

Secondly what, what kind of an adequate philosophy of science that that must provide a criterion of demarcation between science and non science you see in the taste hypothesis as you allege positivists okay they always tried to make a demarcation between science and nonsense popper also did not deviate from that like positivists popper is convinced of the uniqueness and supremacy of science in the overall scheme of our activities aimed at knowledge equities.

What are these what are these methods there we have already discussed if you can remember if you can slightly recall what we have discussed about the method I mean technical methods in the context of ethos of science that empirically confirmed and logically consistent statements of regulated okay perhaps for this reason knowledge taking I mean perhaps for this in science is unique and supreme as compared to other spheres of human activity or creativity okay.

Hence both positivist and popper felt the need to demarcate science from the rest of knowledge acquisition activity okay that is why positivist through an inductor which maintains that the hallmark of scientific theory lies in their systematic verifiability will come to this point a little wild why I said that there is a need to demarcate science from the rest of knowledge equation activities all the spheres of human activity or creativity.

That that and in other, other forms of knowledge acquisition activities we may see in that term how they, they believe in or they believe in the observable fact science also believes in observable fact but the theoretical stage the metaphysical stage the proponents of theological stage the proponents of metaphysics.

They did not the proponents of theology or the proponents of metaphysics they did not believe in the verifiable factors whereas science not only starts with observable fact but also verifiable facts whatever I observe it I must be able to verify okay and positivist argued in matter okay in this context popper deviated from verification will come to this point a little wide later if I focus tick in a glass of water the stick looks bent but actually the stick is not bent it only appears to be meant but actually it is not bent okay.

That is why thing is believing that whatever I see I must believe in that it has it is only limited okay as posed to be argued that know whatever we say we must believe in and positivist argued that and but that thing is believing but that is a limited that whatever I see and may not believe because your widest it looks bends because of the physical properties of glass because of the reflection so many image.

If I say that I have seen abashed if I say this then I am just observing something I may observe something but it is beyond the principle of verification, if I am observed I am seeing both then others must also be say able to see worst it must be verified, okay maybe I get provided some kind of explanation why this the speak in a glass of water looks bent I may say that the maybe the psychological state of mind forced me to see that kind of a phenomenon in the so called the it is called bashed okay.

That is right there you can need to demarcate science from non sciences in this and positivist always argued that that the hallmark of scientific theories lies in their systematic verifiability you have to keep on verifying, if I say all swans are white then I must be able to clarify alls once not an expert hypothesis challenged, now inductive is as we have discussed earlier that are you sure that you have seen all swans in the world to come to a conclusion that all swans are white you cannot keep on accumulating your observations that is I mean there is always the limiting condition.

Under which we say also answer wise or all crows are black that the limit is then that is why positivists who wear inductive maintains that the hallmark of scientific theories lies in their systematic verifiability and of popper comes to the main point.

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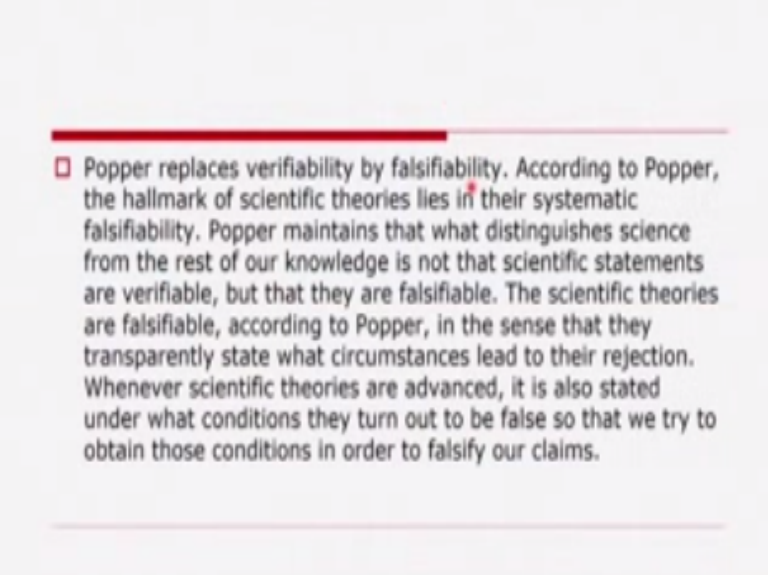

That that property place is verified the meeting by false ability according to popper if for positivist the hallmark of scientific theories lies in their systematic verifiability according to popper the hallmark of scientific theories lies in that systematic falsifiability popper maintains that what distinguishes science from the rest of our knowledge is not that scientific statements are verifiable, but they are falsified the scientific theories are falsifiable according to popper in the sense that they transparently state what circumstances lead to the reject under what circumstances.

Our scientific theories are accepted and under that is that was the job that that was the view of inductive hypothesis and positivist where edge for popper under what circumstances our scientific theories are rejected, refuted that is important if we if we keep on testing or if we keep on accumulating our observations to support our theory then there is no progression of life we must keep on accumulating our observations our observational statements our experiences our circumstances our conditions.

So that a existing theory may be put to test maybe may be rejected in its indict and thereby science can make progress, if I keep on support to keep on collecting data to support a theory then there is actually no progression of knowledge for popper for popular science or we tend to go ahead with the furtherance of knowledge only when we try to challenge the hitherto existing future then that is why it is important for copper to make a distinction between times and nonsense okay.

And the distinction is preferred and what makes this kind of distinction possible not just because they are verifiable but because scientific statements are false effect and the scientific theories are falsifiable in the sense that they transparently state what circumstances need to the energy. Whenever scientific theories are advanced it is always it is also stated under what conditions they try to be they turn out to be false.

So that we try to obtain those conditions in order to falsify or claims it is very important to create conditions to support your scientific case anybody does I mean almost sure most of the scientists they do that but a very few scientists those who have I mean that is a notion a critical mind they will say that no, let us falsify our claim and let us create those conditions which can Pulsifer fire out such records okay this is very important and in fact there is a progression of knowledge because of this and an ideal scientific statement is constituted.

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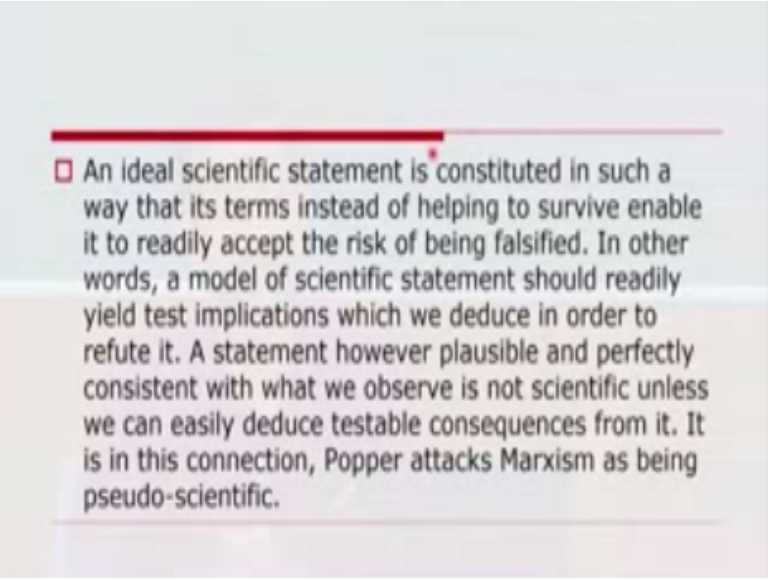

In such a way that it turns instead of help into survive enable it to readily accept the risk of being falsified in other words a model of scientific statement should really yield test implications which we deduce in order to refute it refutation is very important if statement however plausible

and perfectly consistent with what we observe is not scientific unless, we can easily deduce testable consequences from it is in this connection popper attacks Marxism as being pseudo-scientific in fact now if you read the open society and antenna mean by Karl Popper challenged three historical personalities namely Darwin Marx and Freud okay precisely because the way you tend to criticize.

Or the way you try to bring about the critique to Darwin Marx or Freud okay, the proponents of Darwin Marx and Freud they create walls so that you cannot bring about the critics you cannot foreground the critic which hinders the tradition of cumulative knowledge but in this sense re arranging ok but if you look at the second volume of the open society and it is an image okay, now popper himself creates walls to protect Darwin Marx as well as right okay and that is not a part of this course right now.

But this one is very important I mean a statement however plausible and perfectly consistent with what we observe is not scientific, now unless we can easily deduce testable consequences from it in this connection it is no pseudo-scientific it is also I mean in this Canadian this connection that popper attacks Marxism as being pseudo scientific okay in distance when Marx propounded his theory of for example.

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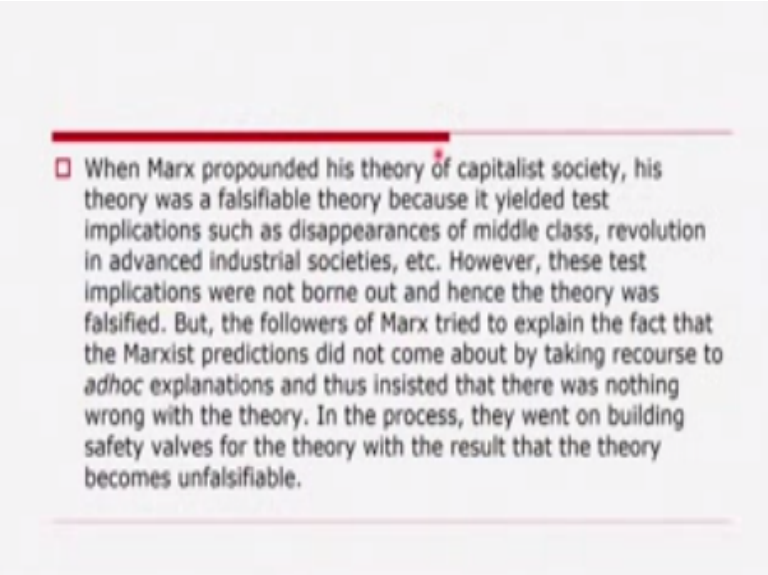

With when Marx propounded his theory of capitalist society his theory was a falsifiable theory because it aided test implications such as disappearances of middle class revolution in advanced

industrial societies and, soon however for according to popper these staged implications were not borne out and hence the theory was falsified but the followers of Marx tried to explain the fact that the Marxist predictions did not come about by taking recourse to a doc explanations and thus insisted that there was nothing wrong in with the theory.

In this process they went on building safety valves for the theory with the result that the theory becomes unfalsifiable which is false under the purview of being pseudo scientific.

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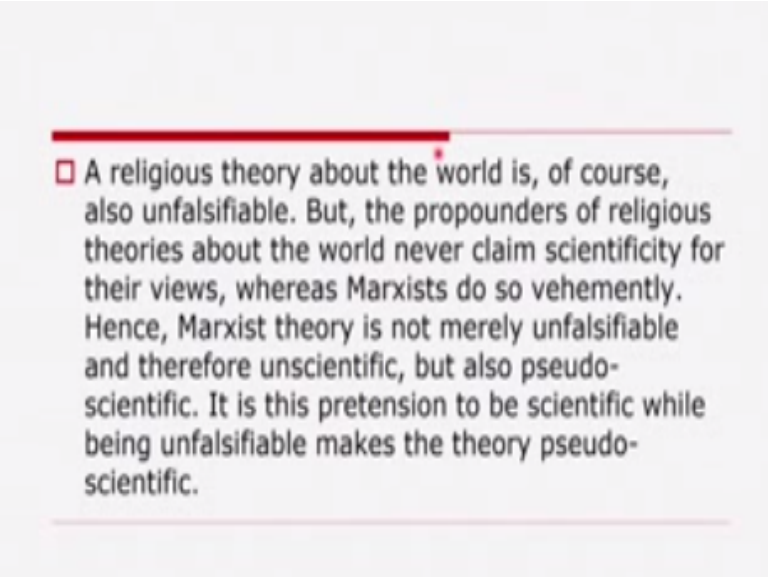

Again a religious to do about the world is of course also unfalsifiable but the powers of religious theories about the world never claimed scientific city for their future whereas Marxists do it do so vehemently religion says that no I mean the proponents of religion they suggest that no we do not believe in science not we are not true we are who do not get our world to be scientific but Marxists always claim Marcus very quickly that no our theory is scientific hence Marxist theory is not merely unfalsifiable for popper.

And therefore unscientific but also super scientific it is this pretension to be scientific while being unfalsifiable next the theory okay but third pop okay in the first volume of the open society and its energy in accordance with what popper considers to be the hallmark of scientific theories he puts forward the adequate model of scientific matter I mean what kind of thing that we are

getting ill that the e theory is unfalsifiable then it is not scientific the theory must be falsifiable because we do not have we do not tend to create Universal theory.

That is why for office I mean in accordance with what popper considers to be the hallmark of scientific theories he puts forward an adequate model of scientific matter.

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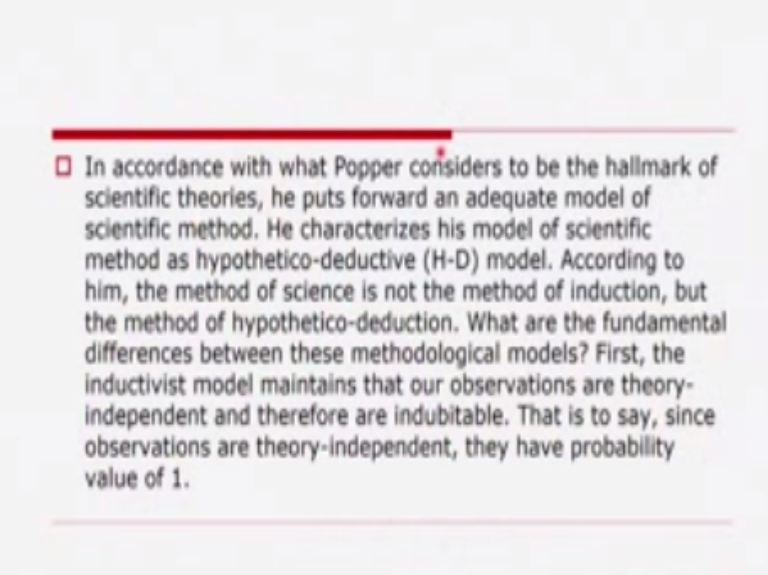

He characterizes his model of scientific method as the hypothetical deductive model we call it HB model not high definition model but hypothetical deductive work okay now present generation perhaps look perhaps looks at high definition but I am not referring to that I am referring to property and hypothetical deductive model, and according to purpose the method of science okay, is not the method of industry that from particular instances to arrive at a concrete generalizes.

But rather the method of science is the method of hypothetical deduction what we say deduction actually deduction I mean it always starts with a hypothesis that, so he said it is it is a method of hypothetical deduction then what are the fundamental differences between these methodological models okay, first the inductivity model as we have already discussed maintains that our observations are theory independent also positivists also maintained that our observations are theory independent and therefore are indivisible that is to say.

Since observations are theory independent they have probability value of one yes we always start with observation that is I mean observations are pre suppositionalist observations are independent we do first it also says.

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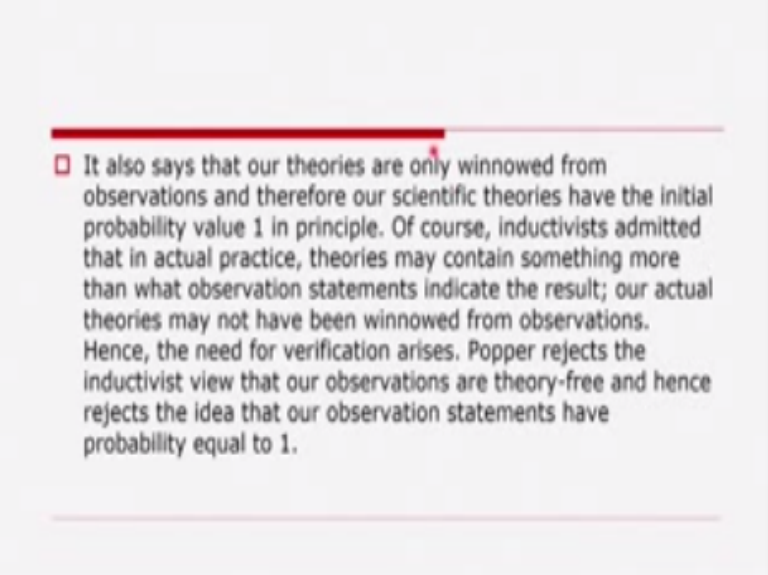

When I mean now industrious positivist they also say that term that whatever theory is that we has they are always we note from observations and therefore our scientific theories have the initial probability value one in principle of course inductive is admitted that in actual practice theories may contain something more than what observation statements indicate the result our actual theories may not have been winnowed from observations, hence the need for verification arises that is a positivist is also argued.

That the hallmark of scientific theory is lies In the systematic verifiability which popper rejects the inductive East view that our observations are curious proper reject is that their theory independent no observations are not theory independent and hence they reject the idea that our observation statements have probability equal to 1 okay for profit observations are always purely added observations no observation whatever observations that we make okay they are not presuppositionalist okay and more importantly what popper maintains.

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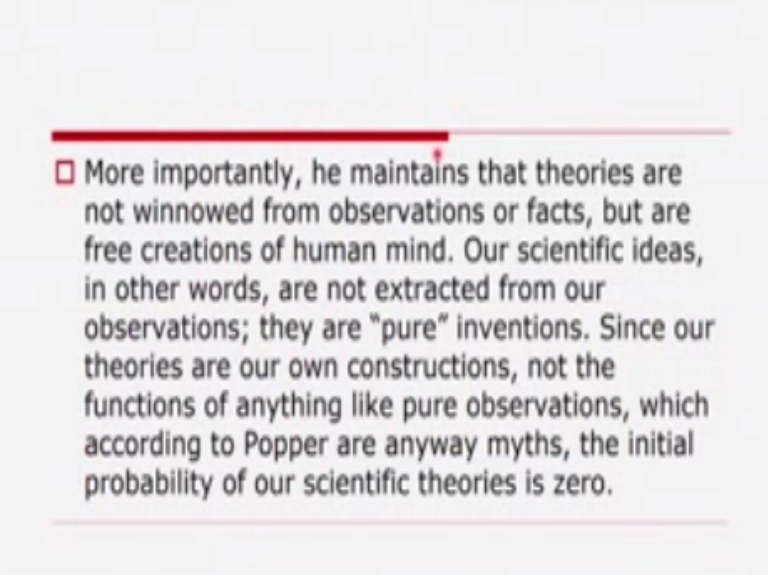

That theories are not we note from observations or fact but are free creations of human mind our scientific ideas in other words are not extracted from our observations there dearinvent or for Papa but Papa since our theories are our own constructions not the functions of anything like the organisms which according to popper anyway need the initial probability of our scientific theory is zero okay.

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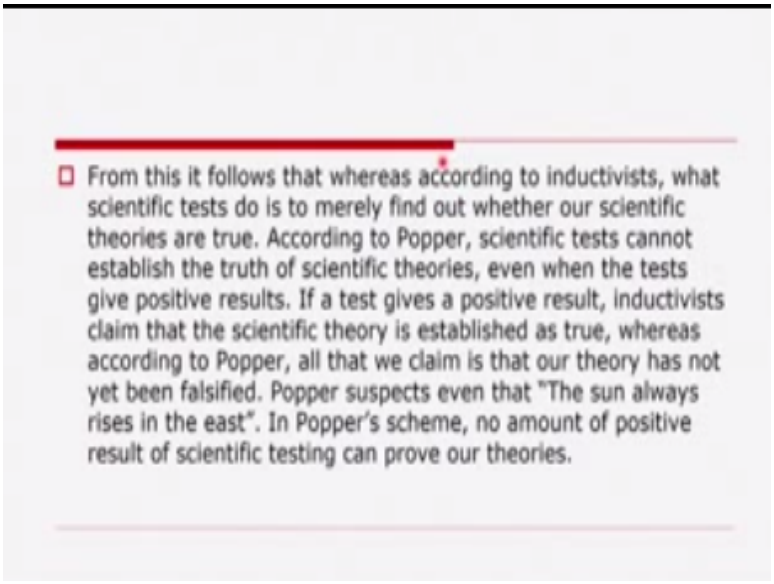

I mean he was quite open okay this is where he deviated from positivist and adult wisdom from this what it follows I mean from this it follows that whereas according to in distinguished what scientific tests do is to merely find out whether our scientific theories are true for popper on the other net scientific tests cannot establish the proof of scientific theories even when the tests give positive results , if a test gives a positive result inductive is claimed that or positive even positivists is claimed that the scientific theory is established as true whereas according to popper all that we claim is that our theory.

Has not yet been falsified because we have collected only those data to support our theory popper suspect even that the Sun always rises in the East in popper schema no amount of positive result of scientific testing can prove our theories and that here different matter whether Sun rises the Sun always rises in the east or not, if you look at the Copernican Revolution mean earlier Ptolemy said in astronomy and that no until notion I mean before prior to Copernican revolution in astronomy that know.

The Sun moves and the planets especially the art ok they remain constant that's right at that time the powers that be including the kings and emperors okay, beings to have this notion called the Sun right is engaged as if the Sun moves around the planets no rather the planets move around Earth that is why Copernicus Galileo they objected and they have to face virulent criticisms from the powers that be, but such was the such was the strength of such a rejection of the powers-that-be that today we can say that this is a this is an erroneous statement that the sunlight is in these

maybe we will say that on the horizon section raced I mean that part of the art which faces towards the Sun becomes day that part of the art which does not face towards the Sun becomes night that is the origin at least not the Sun digesting this that is a different story all together.

But in this context in the context of popper nectar even if I say that the origin set in the East or the Sun rises in the east okay, no amount of positive result and on a daily basis we witness this that we will say that to know this is day this is night, now this is how the orbits of our planets works and also this is how but for popper no amount of repetition no amount of positive result no amount of accumulation of observational data of scientific testing can prove our theory to forage invitees speak of confirmation of our theories.

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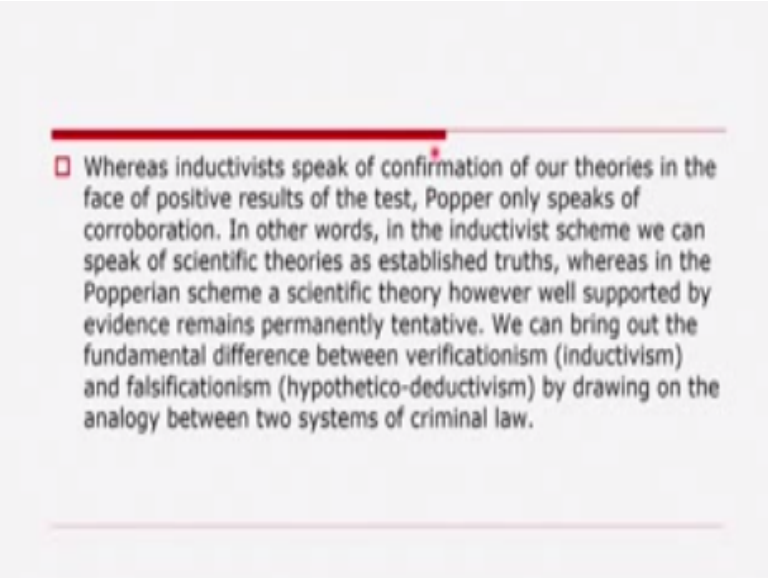

In the face of positive results of the test offer only speaks of corroboration in other words in the in the inductive scheme we can speak of scientific theory the established roots where is in the popper in schema or scientific theory however well supported by evidence remains permanently tentative we can bring out the fundamental difference between verification engine propounded by for inductive visible as well as positivism village and on the one hand and multiplication medium propounded by hypothetical deductive engines on the other by do on the analogy between the two systems of criminal law okay between two systems of criminal law.

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