

**INDIAN INSTITUTE OF TECHNOLOGY GUWAHATI**

**NPTEL**

**NPTEL ONLINE CERTIFICATION COURSE  
An Initiative of MHRD**

**Ecology and Society**

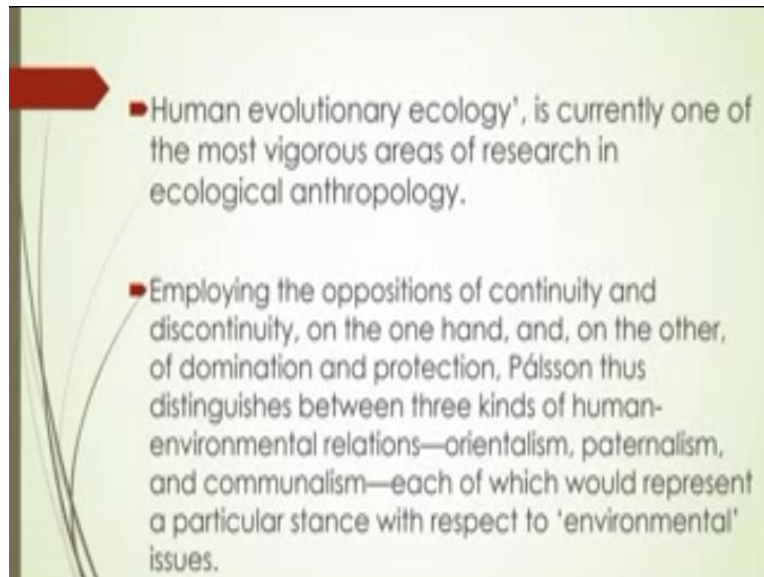
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Well I continuation to what we have discussed in the conceptions of nature there are different, different perception or ideas which involved in the relationship which is normally perceived to exist in the human and non-human and also we had discussed in the conception of nature the idea about the my binary opposition which exists between the natural and supernatural by locating in different settings that is the totemic system.

The anemic system and naturalism and going behind that in this lecture will be primary looking at the kind of conversations or the contested domains and boundaries of culture now in this I will rely more on the works of Tinian world wherein he had conducted an extensive study among the operating culture if not among the hunter and gathering societies now normally it is widely persisted in the social setting or in a cultural group choices are being made depending on the time of celestialization one.

And gives into but then there are also instances where individuals make their choices independently not necessarily based on the kind of knowledge which is being imparted among the members of the society and also there is a differences between the older groups and the young generations and mostly I will also be giving exciting an example among the three communities wherein they engaged in hunting.

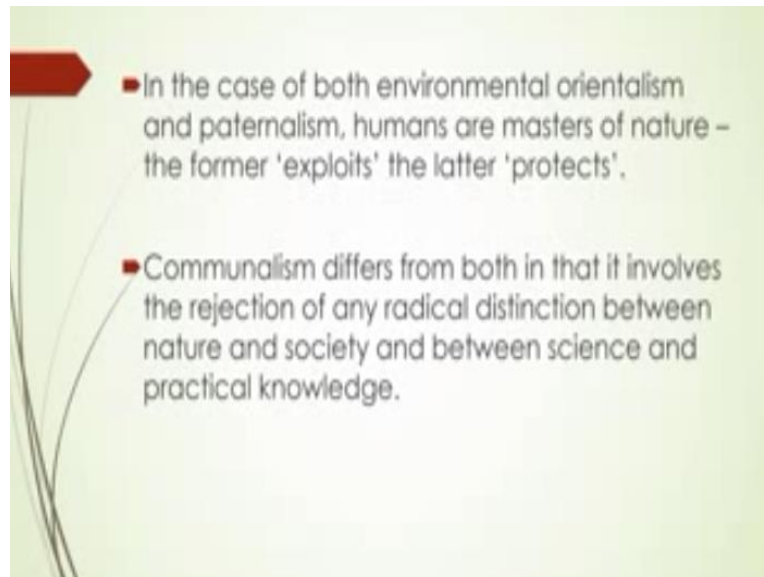
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And mostly what are the kind of skills or if not selection because over a period of time as the environment changes so is also the kind of technology which they usually and get into now for quite some time this human evolutionary ecology happens to be one of the main or significant areas of research in ecological anthropology and in this particular lecture I would try to employ the continuity and discontinuity and on the other hand the idea of this domination and protection who actually represents this domination and who actually protect that is who actually plays the sort of the predator.

Now if you look at the work of this Belson's he tends to a sort of, of distinguishes three kinds of the domain in the domain of human environmental relations and he posited three sort of trends that is the environmental Orientalism paternalism and also communalism and each of these in a way represent a stance with respect to environmental issues.

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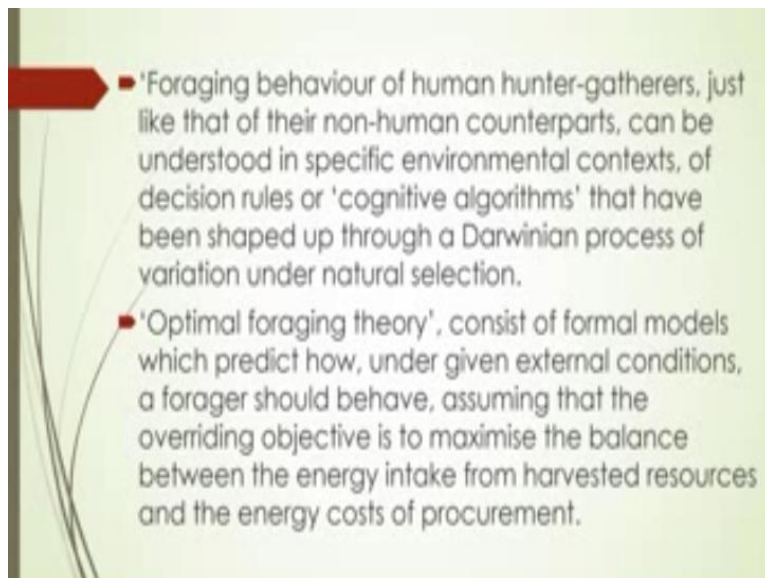
Now if you look at in the case of both that is the environmental Orientalism and paternalism human in a way tends to pose it if not sort of assumed to be the masters of nature and therefore in the process and which directly or indirectly in exploiting whereas the letter in away place the role of the pretext now the products in a way is normally being placed by the kind of paternalistic attitudes or behaviors of humans.

Now Orientalism in a way is more engaged in amazing and exploiting now different from these two the third one that is community in a way from difference from Bordeaux skills because in communalism it involves the rejection of any sort of distinct demarcations which sort of and gear and gives in looking at nature and society and also between science and practical knowledge and when we talk about practical knowledge it is knowledge it is normally being practiced by the native societies and which is known to be an informal knowledge.

And which is again antithetical to the science the science which is practice in academia now this sort of demarcations between the formal and non-formal knowledge is again distinguishes when we talk about the relationship between nature and society and therefore communalism in a way sort of reject this idea of distinction which normally is practiced by Orientalism and paternalism

now if you look at the forehead behavior which is pretty much inherent in human hunter-gatherers the kind of environment which is specific to them one engages in looking at the sign of choices that is the selection the rules which in a way is known as the cognitive algorithm.

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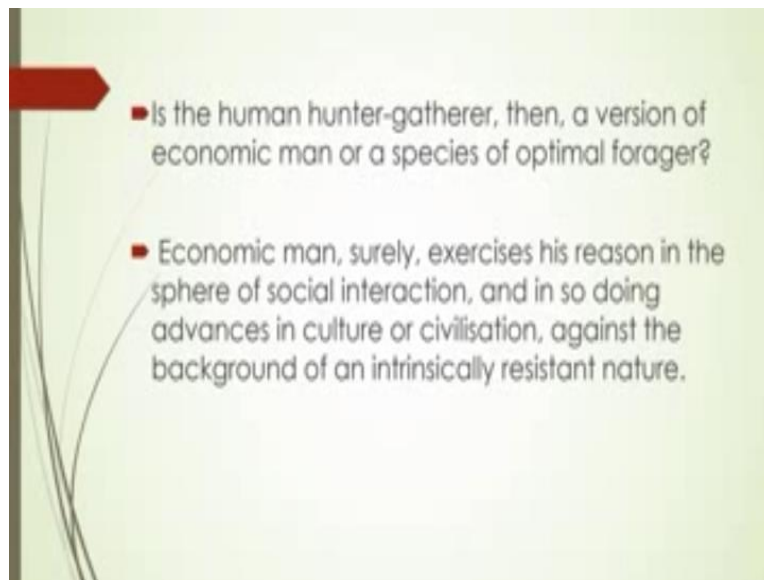


That have been stepped through a Darwinian process of variation under natural selection but SSB has we agreed and looked at how evolutionary or social evolution takes place man becomes more skillful and then the understanding becomes more rational and they are based on rational choices but to what expand the human society if not individual engaged in these choices or in terms of this natural selection is something we would be looking on.

Now there is a sample of optimal foraging theory and in this particular theory it consists of our formal models within away predict how under a given external conditions that is outside once individual appraises should we have assuming that the overriding objective is to maximize the balance between the energy index from harvested resources and energy costs of humans which means we can in a way contextualize in the sort of operation between the domination and protection and in what circumstances how nature in a way provided sort of the food.

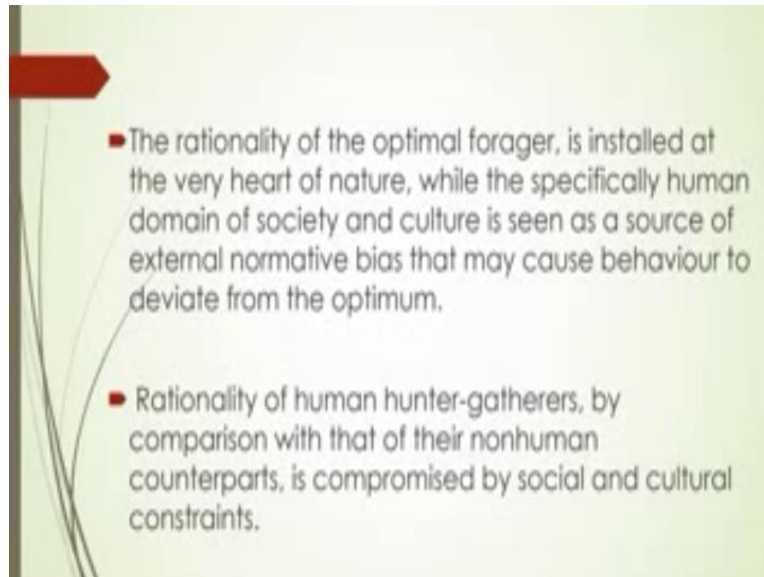
And food supply to humans and to what extent the individuals that is the hunter in a way is able to maintain sort of balance in this whole relationship therefore this sort of maximizing the balances between the sign over energy which is being consumed from the harvested resources and the energy which is being invested in this is something was optimal for even jewelry discussion discusses and talked about.

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Now the question is, is the human hunter-gatherer in a way is engaged or practice or follow the principle of economy or a specific of optimal forever now it is interesting to bring the domain of this economy in anthropology because the first form of economic engagement or one external relationship with the physical environment is economic in character because the kind of relationships which normally is being used in sort of the means of production is what this optimal for either innocent talks.

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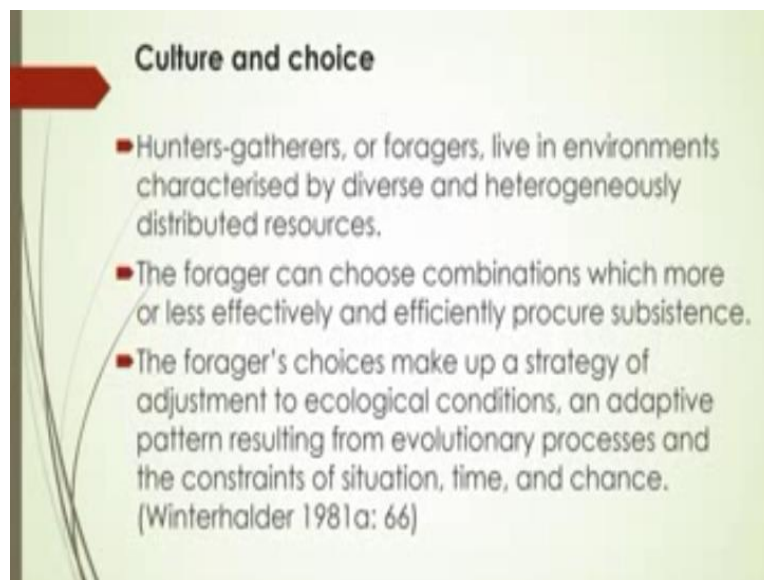
About now what is this equal McMahon them they going back make mention in a way exercise with this knowledge that is in terms of the social interaction and also in doing this it tends to move on that is advanced it evolves into a much more thin line or we can say if we go by that it will clearly that it needs from simple to a much more complex if not a civilized ones against the background is in physically known as resistant in nature now therefore these rational choices the rationality of this optimal Fraser in away is it installs in the very heart of nature that means the human relationship with nature is pretty much interconnected and again the kind of domain of society and culture is more often times seen as a source of external normative bias.

That may innocence result to some kind of a deviation from the optimum that is in the wilderness it brings some kind of an imbalance rather than bringing balances because the amount of how we interact if not exploit the resources to what extent with of the human or the nonhuman character brings out this idea of domination and protection now based on this rationality if you try to bring in this rational choices in the natural selection of the context of the hunter and gatherers.

We can in a way see the differences that the nonhuman counterparts is in a way compromised by social and cultural constraints what are the social and cultural constraints and human in a way is

socialized and then the traditions and cultures are being learned and there are norms and values or ethos with guide and individual and mostly these norms and values are something which is sort of taught informally and which is more often time handed down from one particular generation to the other generation.

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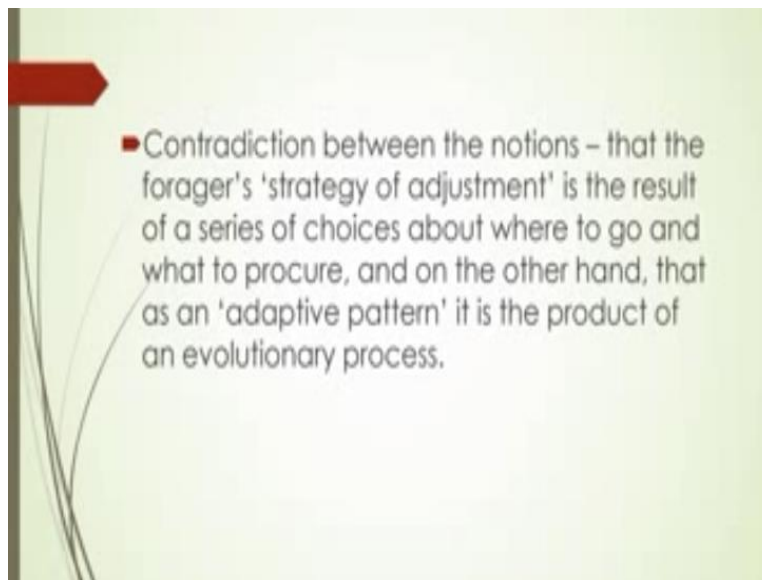


And which in a way is recorded or orally you know put into practice now as I talk about that the rational being natural selection we will try to look in what is culture and the kind of choices what one's and get into now a hundred gathers or a phrase in away inhabited or occupies and ecological needs which in a sense is characterized by divers and heterogeneously distributed resources now being part of this environment the hunter and gatherer then tends to engage in choosing the sort of from by measuring if not looking at which more is which is more or innocence less effectively and efficiently procure subsistence what.

What particular idea is not choices tends to be more rational or in a way rational be is also defined by the kind of optimal output so if for instance is if they feel that the kind of selection or choices tends to be more fruitful then obviously the Fraser would work for it and this more or less effective that is being combined and then once met the choices this strategy in a way winter

holder in a way make a very vivid ending the strong observation where in hisses that the foil to is made of a strategy of adjustment to a particular ecological conditions more or less based on adaptive patterns and which results from the evolutionary processes and the constraint of situations time and chances now in a sense the ecological condition what ones and gaze into or the kind of adapt equation one what once follows.

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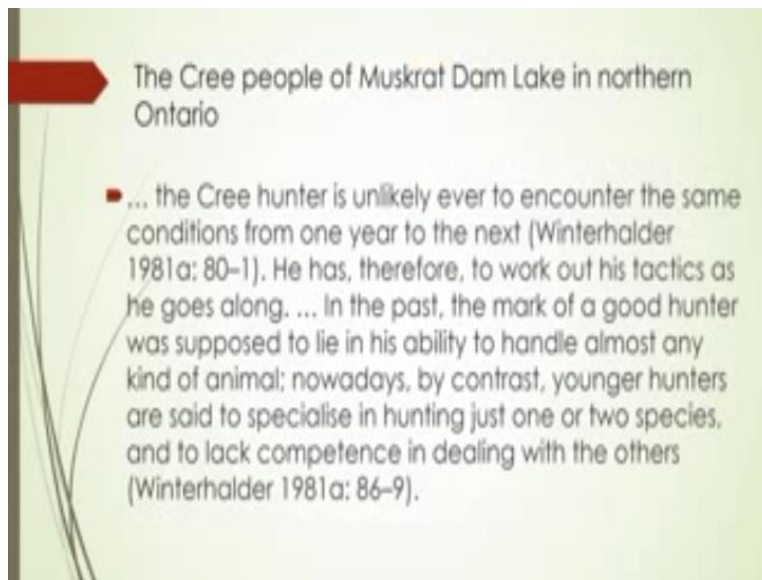
If we see it from the point of evolutionism or evolutionary processes there are this situation in constraints which normally is being witnessed that is time and space and situation in essence become sort of the factors which influences one's in choosing the kind of strategy now there is also this upon flick of interest if not contradiction which normally cropped up between the notions that what one swallows that is the strategy of adjustment which in away is again the result of a series of choices.

About where one wants to go and what wants to procure and also on the other hand there is this adaptive pattern which is the product of again evolutionary process now this kind of choices with which is modest about the ecological pattern once involve or engage improve also but the



individual choices which becomes more pertinent is discussing now we will try to look at some of the examples.

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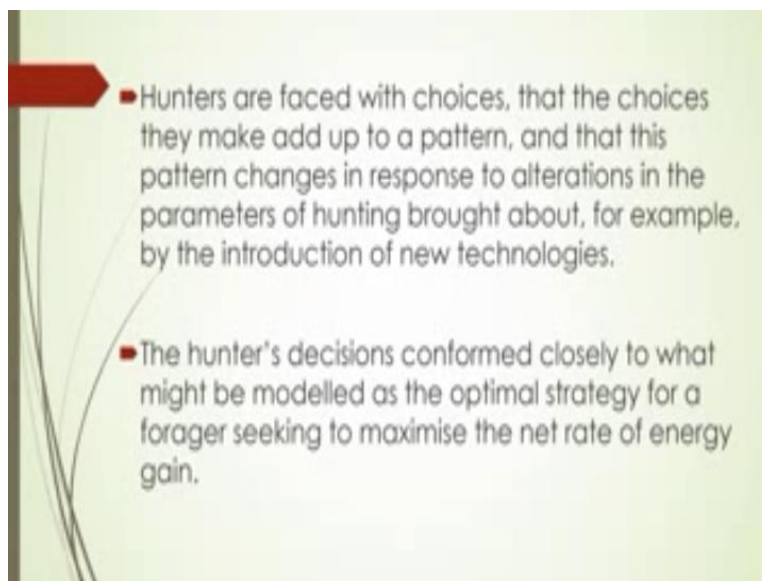
The ethnographic study which is done by team in voles we are in the winter Holder has sort of summarized in goal in a way stand quite a number of years among Cree hunter and he mostly examined the character the kind of the Cree members relationship with the nonhuman is not the environmental conditions now in this case the Cree hunter is sort of unlikely to encounter these same conditions from one year to the next because it is through that because the environment changes.

And so is the species which are around and maybe the number of animals it are I mean the abundant may be previously might not be the case as the year goes on passed by therefore in this particular situation the Fraser in a way tries to you know reinvent and bring out a different kind of tactics and maybe in the past he might be considered to be a good hunter and one also supposedly based on his ability to you know handle almost any kind of animals.

But things have changed over the years and then so is the environment and by contrast you know position to the you know the elders is not older generations the younger hunters in recent times are more said to be specialized in hunting just one or two species and in the process they are in sin to be lacking competition in dealing with the others now what kind of differences we notice in this context as you know human evolved we can to some extent see the kind of skills and rational choices.

What once is embedded with so as they move on they are in away loaded with different kinds of skills and sources but these skills and rationality in a way narrowed down the kind of choices what one generally have but unlike that the elders of the older phrases are more holistic in their efforts and the kind of knowledge is much more worse compared to younger generations now therefore one can actually look at how there is a shift in the Aleutians or the tactics world the kind of technology what ones and get into a changing.

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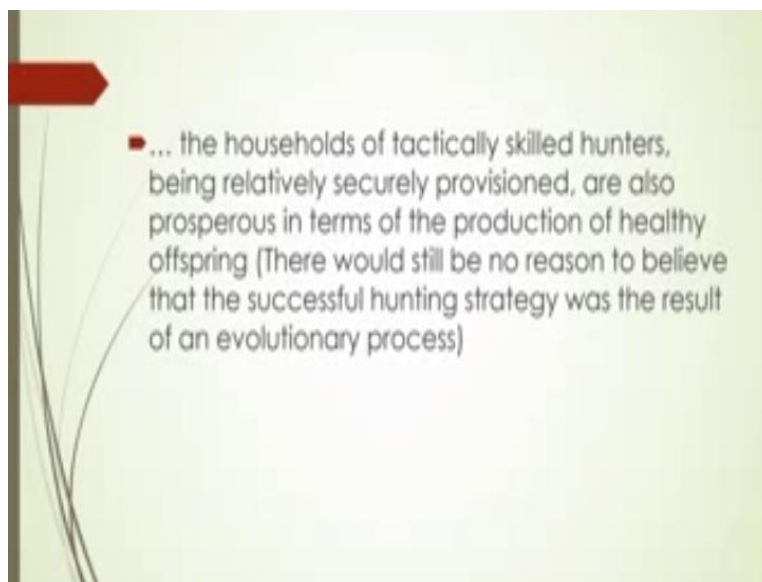


And evolving this I am talking in the context of the evolutionary process now in this given the situation of the environment hunters are easily faced with choices so these choices in a way happens to be made up of a pattern and this pattern changes in response to the directions in the

parameters of how hunting is brought about for example by the introduction of new technologies so they might not really rely on the kind of knowledge which is being shared by the elders they might come up with their own choices.

And these choices are not seen but by introducing new technologies now the hunters in a way decisions to conform closely to what might be model as the optimal strategy for a Fraser in trying to sort of pulses or maximize the net rate of energy gained therefore one might not really struggle to the extent of what used to be earlier there will be definitely a way out or if not one will try to find an easy way out rather.

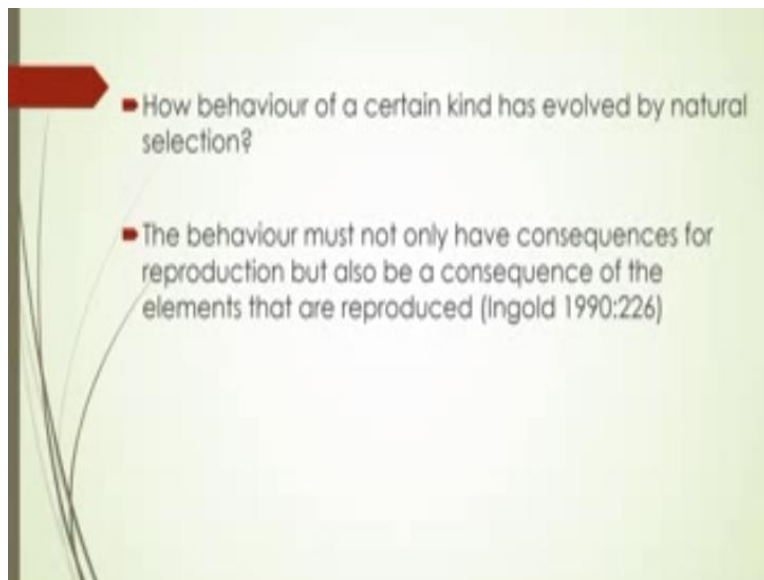
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Now usually it is traditionally practice that the house whole of gives practical skill hunters are being relatively secure and provisioned and also they are much more prosperous in terms of the production of healthy offspring now in this one can look at the social life and economic man of any individual in the economic perspective one might be engaging in rational choices but on the other hand in the social life that is in the context of the family.

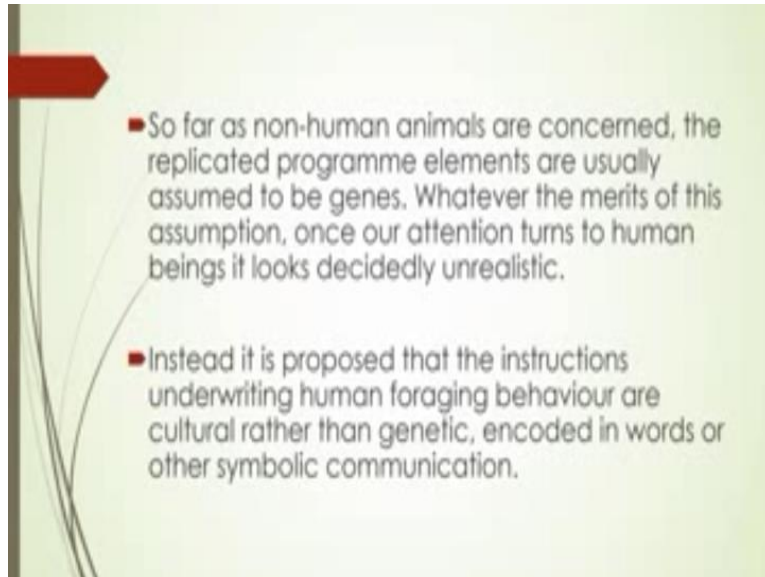
There would still be you know no reason to believe that the successful hunting strategy was the result of an evolutionary process now over here we tend to look at no matter how successful and individual is facility or the kind of integration and individual health but that does not guarantee that that will replicate in the context of hunting now moving on we can in a sense the questions by looking at how the behavior of a certain kind has evolved by natural selection.

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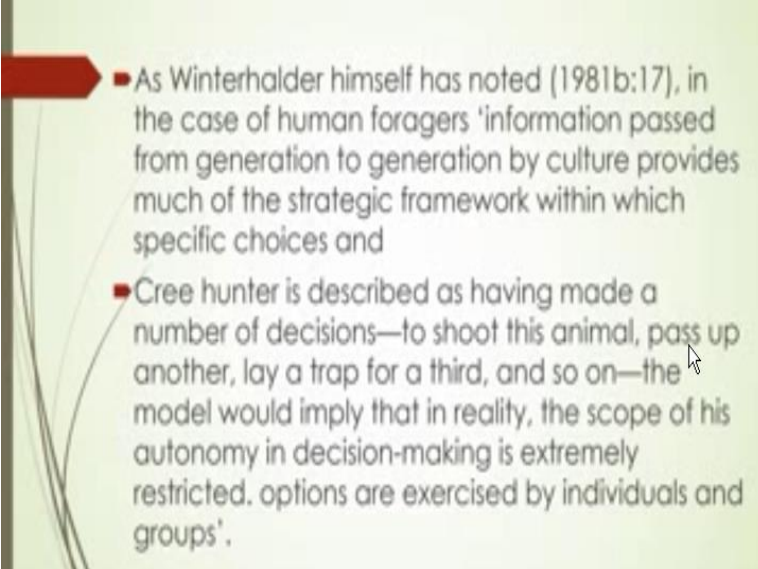
And obviously with the natural selection in the environment the behavior in a way also the whole that is what kind of behavior are we talking here the behavior must not only have the consequence for reproduction but also are a consequence of the elements that are reproduced this is what involve has argued that is the elders who are constantly you know and giving in much more of reproductions naturally does not live to the reproducing of what is actually required.

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Now so far as this non human animals are concerned the kind of elements which usually are assumed to be infringed by these genes now there can be a different assumption or our attention in a way to human beings looks in a way unrealistic or maybe let us say irrational in innocence now what is it to be realistic in that sense or rather this sort of instruction which are being given to the younger lot tends to you know have if they have a strong genes or there is a genetic connection which are usually shared orally or through certain other kinds of symbols or symbolic communications.

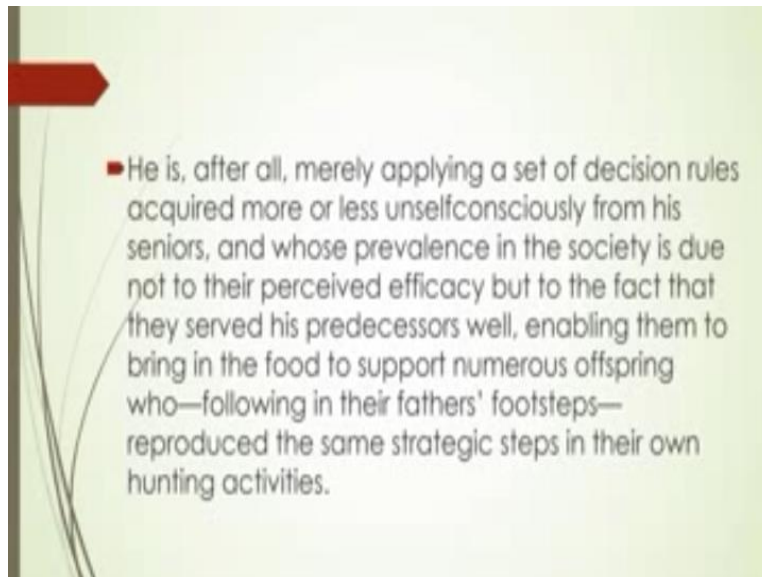
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- As Winterhalder himself has noted (1981b:17), in the case of human foragers 'information passed from generation to generation by culture provides much of the strategic framework within which specific choices are made and
  - Cree hunter is described as having made a number of decisions—to shoot this animal, pass up another, lay a trap for a third, and so on—the model would imply that in reality, the scope of his autonomy in decision-making is extremely restricted. options are exercised by individuals and groups'.

Now how far as to what extent this sort of cultural and rather than genetic has any kind of implications now winter holder happens to rightly observe and he closely noted that in the case of these human forests the information or these knowledge are being passed on from one particle generation to the other by culture and which is innocence these practices provide much of the strategic framework within which specific choices are made and the clean hunters in a way described as having made a number of decision.

That is what are the numbers of decision that is to suit this animal part of another and goon looking for a different one or may be rather than am getting a suit we can lay a trap for a thought and so on this would in essence imply that in reality this scope of his autonomy indecision-making is extremely restricted and rather options are exercised by individuals and groups now it is pretty evident and clear.

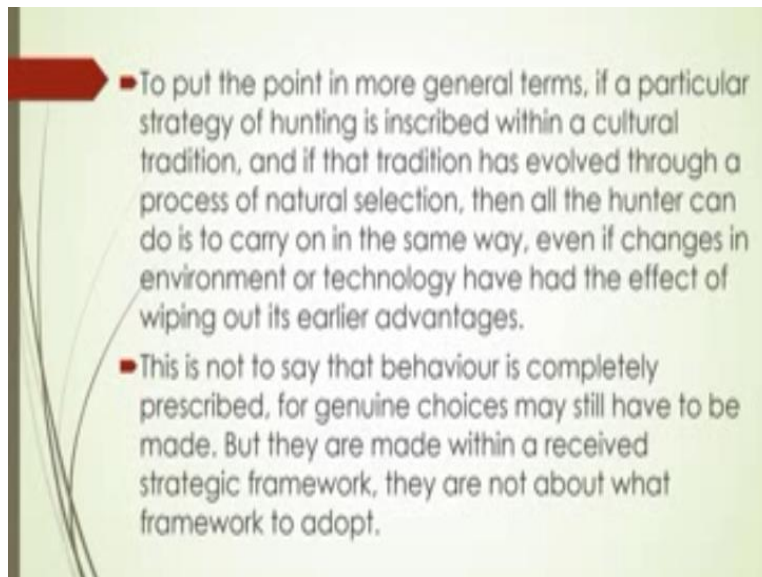
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That no matter how an information or a knowledge is being passed from one members of one generation to other in the real setting in reality and individuals to some extent has a number of choices in taking a decision now in this very context it is important to look at that how a member innocence is simply trying to make a decision now how does a decision takes place then the decision rules in a way are more a more or less unselfconsciously from engineers.

That is how the elders are in a way in printing them in taking or making decisions and the whose prevalence in the society is view not to the perceived efficacy but rather to the fact that they serve his traditional world that is in allowing them to sort of bring in the food to support the other members of the community therefore this sort of cultural heritage if not traditions are being practices so in some way a members is to some extent restricted and compelled to sort of conform with other members of the society or culture group.

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Because they tend to reproduce the same static steps in their own of within the capacity of being an economic man is not engaged in these hunting activities now to make or to elaborate or to simplify what we have discussed if a particular strategy of hunting is inscribed within a particular cultural traditions and in-depth traditions if that tradition innocence roll through a process of natural selection then all the hunters in a way can do is to carry on the same way rather than finding a different way out.

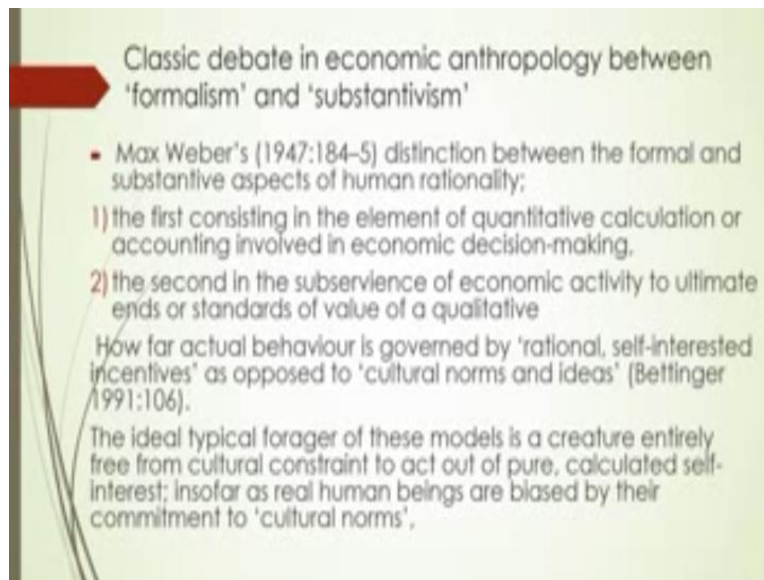
Even if there is a changes in the environment or technology which might have in the process effect in wiping out its earlier advantage now therefore by saying so that does not mean that the behavior of the Fraser is completely prescribed in making a choices but still the individuals still have you know a different way of making digital decisions and which in a way can be sinned as the strategic ideas or within the strategic framework.

That is how the kind of training or practices which is being learned within the as a member of this particular society in which he is more or less being restricted or compelled to adopt that particular strategy now we can actually look at the some of the debate why this being an economic man or economic is to be contextualized in the discipline of anthropology that is by



looking at the differences between the formalism and substantively think now the German sociologist next Weber innocence way back in 1947 distinguishes between the formal and the subset aspects of this human rationality.

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Classic debate in economic anthropology between 'formalism' and 'substantivism'

- Max Weber's (1947:184-5) distinction between the formal and substantive aspects of human rationality;

- 1) the first consisting in the element of quantitative calculation or accounting involved in economic decision-making.
- 2) the second in the subservience of economic activity to ultimate ends or standards of value of a qualitative

How far actual behaviour is governed by 'rational, self-interested incentives' as opposed to 'cultural norms and ideas' (Bettinger 1991:106).

The ideal typical forager of these models is a creature entirely free from cultural constraint to act out of pure, calculated self-interest; insofar as real human beings are biased by their commitment to 'cultural norms'.

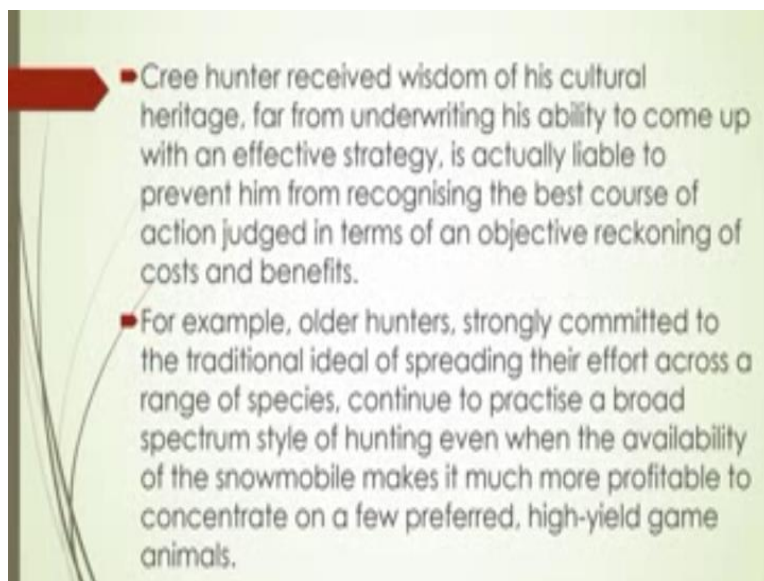
Now simply talk about rationality or rational choices web attempts to classify different types of rationality now rationality in a way is when an individual is guided by different situations in the context of if the norms and values of a society can also in a way influences the behavior or the rational choices of an individual or in other contexts is an individual is set a particular bolt depending on the kind of goals one will try to you know find away or a means to achieve that goal.

So in a way that practices is also irrational choices or in general rationality now the first in a way consists of the element of quantitative calculations or accounting which in word purely and economic decision making when we talk about quantitative we are in away using the sort of the mathematics of you know what you are going to achieve and gain from what you do your action in a way is being guided by the goal which you are trying you are person so in a way you can say it is a goal-oriented action or goal-oriented behavior.

And the second side is more of subservience to economy earthly activity that means the ultimate of standards of value of qualitative when we talk about qualitative it is more of the emotions which is which is more to do with customs traditions and values of or we can say the ethics of the society now how far this kind of choices or the behavior so in a way is go on by this rationality.

Because sometimes is self-interested incentive also is in opposition to the kind of culture norms and ideas you tends to pursue think not just for your individual or liberal interest again but for the larger cultural thing but once you pursue your actions because of your individual interests and choices that will be innocent in contradiction to the societal values and norms now this ideal typical Pfizer innocence the models are free from this cultural constraint.

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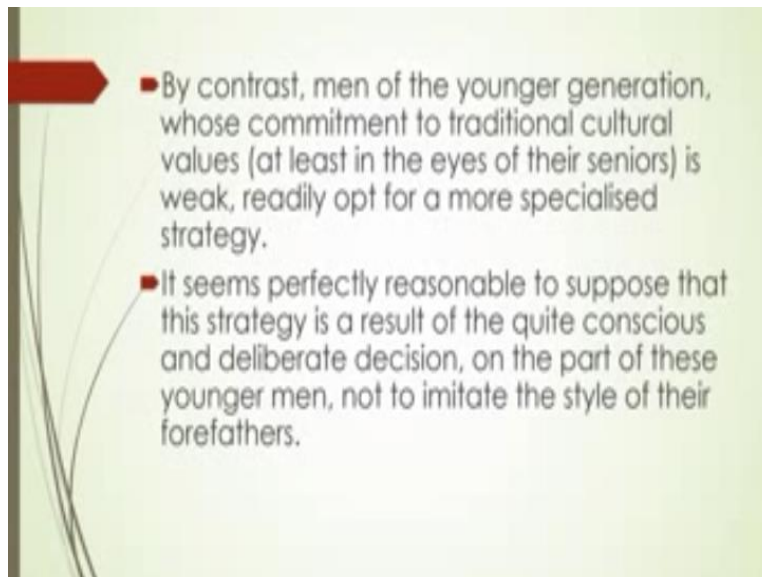
When we talk about cultural constraint we are talking about the cultural norms and ideas and in so far as these where human beings are biased by their commitment to this cultural norms we as a member of this society we conform to the rules and behavior of that particular cultural group now in this situation if you try to look at the example have perceived a different kind of wisdom

in that culture patterns where one is now means one to actually liable this prevent from this recognizing the kind of the course of actions which is just normally in terms of the objective reckoning of cause and benefits that is how an individual is guided by a wool oriented accident now if you stress father the kind of rationality and choices by fighting an examples of these three hunters for instance and all hunters generally are more strongly committed to the traditional ideals of spreading their effort across the rims of species.

They do not really limit themselves or their idea is not narrowed down to only a single species and they sort of continue to you know practice more of a holistic approach in even in their hunting practices so what this in a way are so is which will be much more profitable in the long run and which will in a way give a scientist of regenerating is not bringing a balance in the ecosystem.

But when the younger lot and given or beings speaks to a limited species that particular species over a period of time my chances are my dad there it will even become extinct so in the long run if you look at the whole ecosystem or from more of a holistic approach it is the chances of causing more of doing negative implication is much more or higher now in contrast to the older generation this younger.

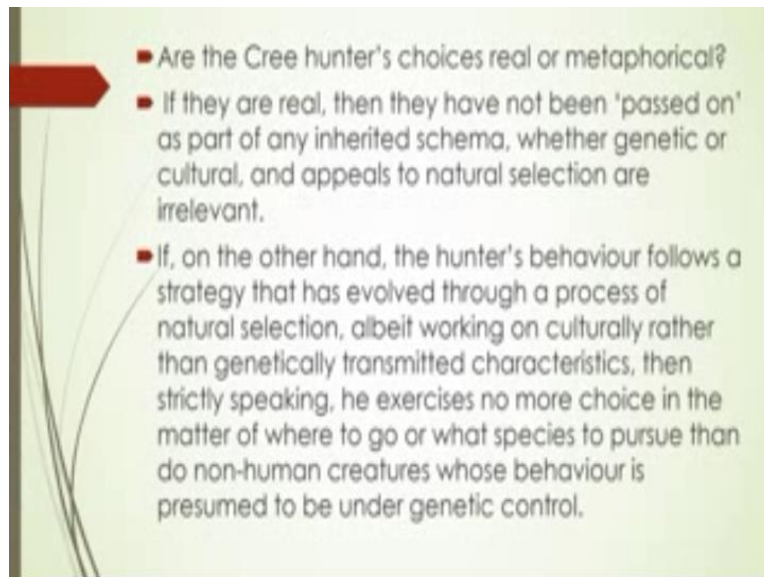
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The youngsters are much more committed to you know traditional culture values only in the eyes of the seniors and then therefore the kind of conformity and the values and attachment they share with the society is weak and is simply because they are relying more on their specialization or bringing of the different kind of strategy or technologies now therefore in this situation it seems pretty evident that the strategy in a way is an outcome of the pretty much calculative and self-interested decisions.

On the part of these youngsters not to necessarily conform with the tradition and, and imitate the practices which are being practiced by the older generations now given this context of the kind of dilemma the differences between the raising communities like the Cree Hunter that is the differences in choices choice making and in differences in the use of strategy the evolutions of technology.

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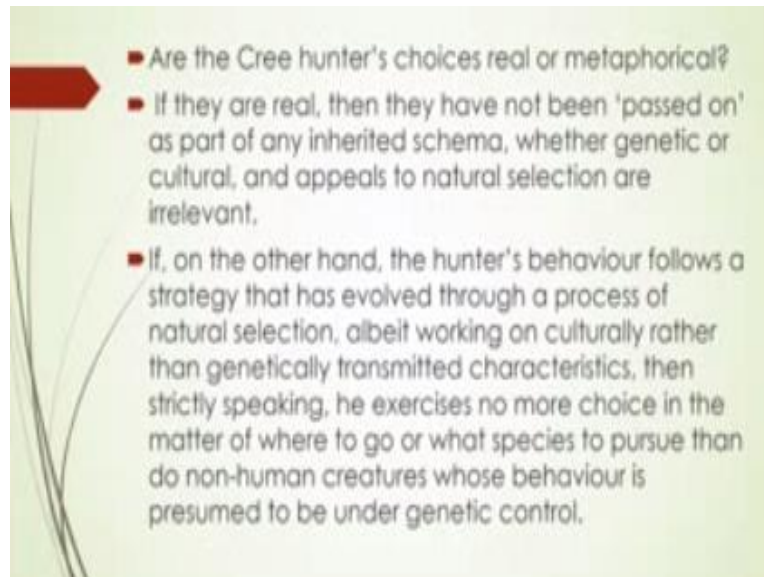


We can perhaps ask questions by saying that are these three hunters in a way rightfully making choices or is these choices real or mere merely metaphorical now when we talk about metaphorical it can be more to do with you know sort of the cultural practices or maybe which is normally fit and not done now if assuming that if this is real then this idea which is passed on as sort of any, any inherited schema but the genetic or maybe whether it is cultural and obviously this appeals to you know natural selections which might over time tends to be irrelevant.

Now as we have been cited in the example, the users are normally pretending to follow imitate their fore fathers but in reality they done. So this wisdom or knowledge which is mean passed on over a period of time in the context of choices or natural selections becomes redundant is not irrelevant.

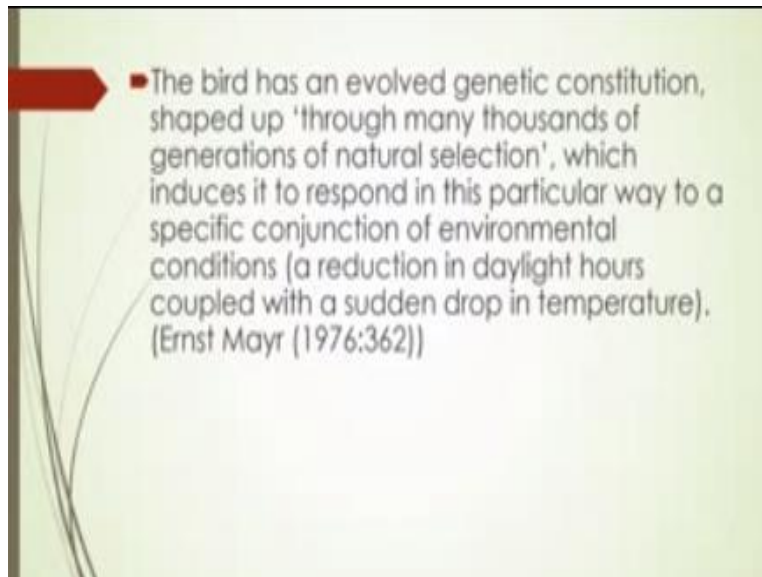
Now from the flip side if you look at the behavior of this hunter innocence also follows a strategy, which actually has evolved through the process of these natural selections however working on a more culturally rather than it is genetically transmitted characteristic then in this very context the hunter in a way is no more exercising the choices, in the matter where to go out and what kind of species one wants to pursue.

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And this in a way is to be seen as a behavior which is you know presumed to be under genetic control, now we can pose a question by saying that can the hunters be really jealous under genetic control or do they have to be you know conforming to the kind of traditions or cultural heritage of that group, in order to make that kind of selections. Now for example our mayor has cited here where I quote.

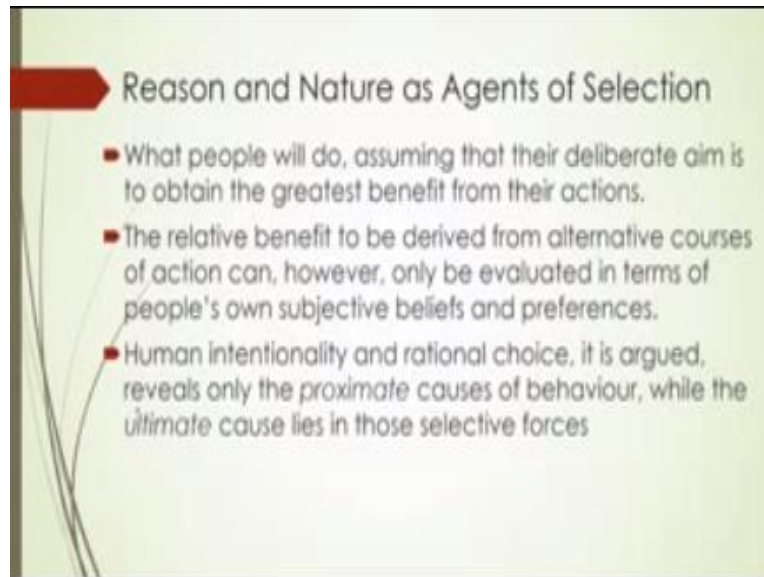
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The birds in away as you know evolve some kind of genetic constitutions and so is the animals. Therefore they are genetically conditions and the kind of conditioning which is being given to them they will naturally stay in the particular patent. Now with innocence are set up through many thousands of generations in this natural selection which in a way induces in this particular way to a specific consumption of sort of the environmental conditioning or what once engage in this reduction in daylight hours may in a way the part of what one is being trained.

So therefore this sort of genetic conditioning or genetic Constitution it is what the nonhumans are usually being made up or settled; now we will try to look at some of the reason and nature which is seen to be no agents of selection.

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What our water perhaps the kind of region and the nature as to why or the factors which are responsible for the selection. Generally what people think and do or assumes that whatever, we do is a deliberate aim and to obtain the latest benefit from their actions. Now human by nature is irrational being innocent we make choices in a way could benefit us rather than which would be destructive and then which eventually will be a negative inner efforts.

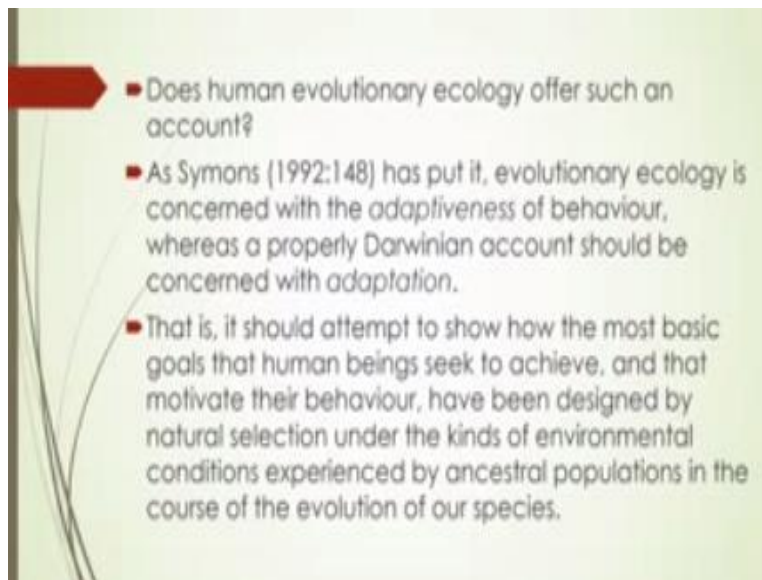
So we humans in a way are rational beings in that sense, now this relative benefit which is being sort of achieved from the alternate choices of actions however can only be measured in terms of people is on subjective beliefs and preferences. Now how do we make or measure this subjective beliefs and preferences because even given the situation is of the hunters in the forest now because the young world load has much more choices and no matter how much they are being trained and guided by their elders and seniors.

At the terms of all kinds of selections they go on with their individual subjective beliefs and preferences. Therefore humans the nature of human intentionality and rational choice can be argued, by saying that it ultimately reveals only the proximate causes of behavior while the



ultimate causes slides in those selective forces and what are the selected forces? If it based on reasons or nature or also, we can ask equation that thus human illusionary ecology.

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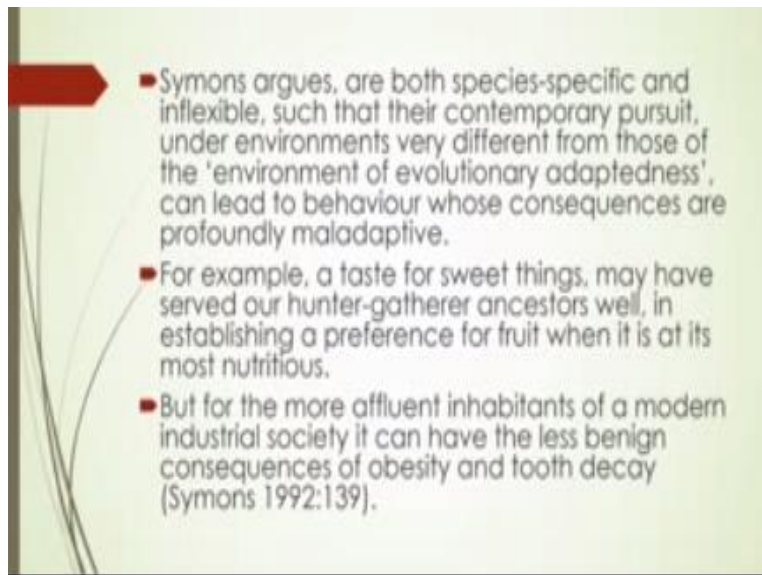
Did offer any account in this, now as Simons has you know put it in the evolutionary quality what he says is the adaptiveness of behavior whereas which is a proper properly a Darwinian account, because according to the Darwinian theory joins them in a way is that it is not the stronger of the species, which will survive but it is the one who is this adapting or adaptive will survive. So in that context you know confront if not adopt or to survive in the environment one does not necessarily means to be strong and then have that kind of power rather one needs to have that adaptiveness behavior.

And which are primarily you know talked about by serving hors d'oeuvre imaging. Now in this our idea is to look at what are the most basic goals that human is seeking, because humans constantly is engaged or influenced by different factors and in this we are constantly engaging in trying to seek a particular goals to achieve something and we are in a way setting and molding our or acting out or our actions or behavior is being guided by these preferences and these ideas.

Now and that obviously also motivate the behavior of an individual and if you see the context of the natural selection under this kind of environmental conditions, which are experienced by the ancestral or the forebears population in the course of the evolution of our species. Now therefore one needs to attempt in looking at this kind of actions or orientations, how one is make selections you have to achieve a particular go also what benefits them ultimately.

So because that actually motivates once behavior in terms of making choices, father Simon's are also argues that both the specific and inflexible systems.

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The kind of contemporary pursuit is usually being based on the environment evolutionary adaptiveness and which will eventually perhaps lead to behavior, whose consequences are seen to be profoundly maladaptive. Now when we talk about maladaptive we are also talking about not just a human but the kind of balances which is being seen to or to be contextualized in the human and non behavior or with the environment.

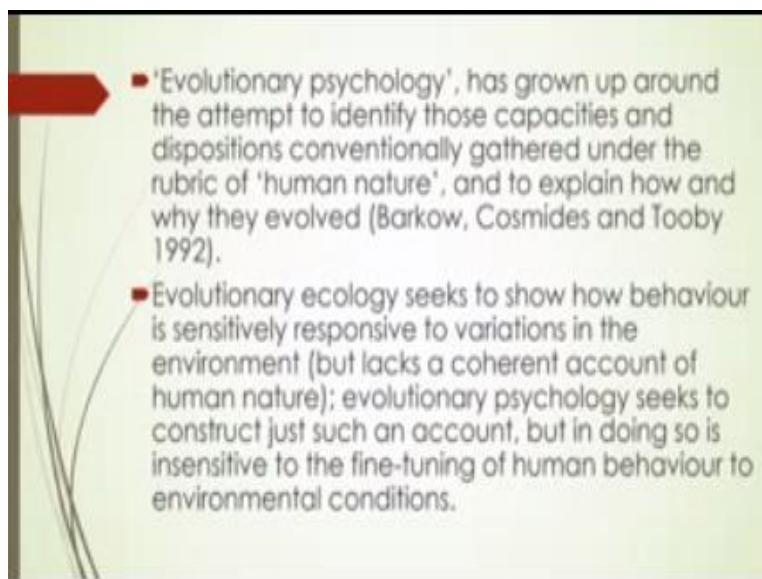
Now when it becomes maladaptive obviously it is not just a nonhuman it is going to be affected but in the long run it is also the human, who will you know the other consequences. Now for

example in a very you know simple term if you look at the examples of a test for sweet things for example may have served the hunter and gather the ancestors, in a much more positive note but in establishing a preference of a food when it is at its most nutritious.

But in a more you know affluent society in a much more say civilized or modern society the particular sweet things, might not be preferable because people are much more health conscious and then they might say that in return to being obese or it is against these problems of obesity. So the examples of even the choices of food which is prevalent in native societies and in a much more modern is also different and this is how sort of an evolutionary processes is taking place.

Now there is a different sort of concept it is being introduced and which a boost in psychology is and which happens to grow up in an effort to sort of look at the capacities and dispositions which are conventionally gathered under the rubric of human nature, and to explain how and why they evolved. Now in illusionary ecology it tends to show and tends to show.

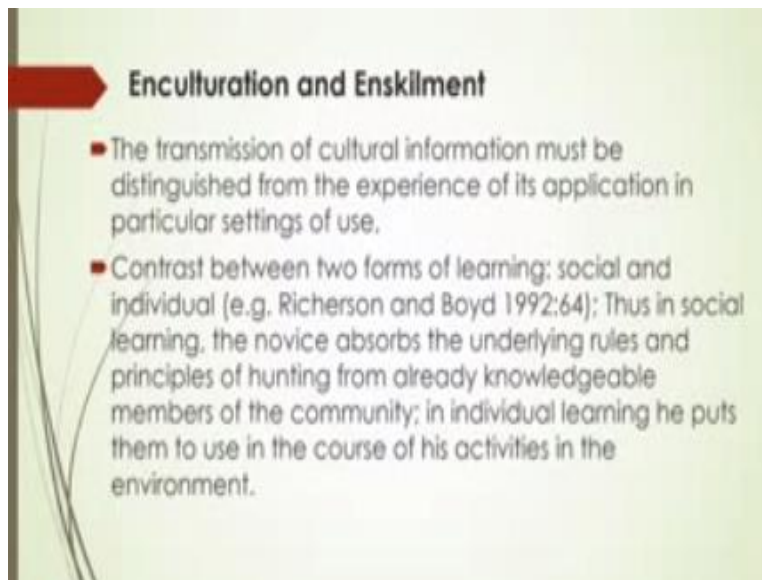
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How behavior is sensitively responsive to variation in the environment but that happens to make a coherent account of human nature rather evolutionary psychology seeks to construct such the certain

account but in doing, so they are much more being insensitive to the fine-tuning of human behavior to environmental conditions. Now we will really look at what is and considerations and Skillman. Now usually as we said knowledge is being transmitted and this transmission of this in knowledge must be distinguished from the experience of its applications in the particular settings.

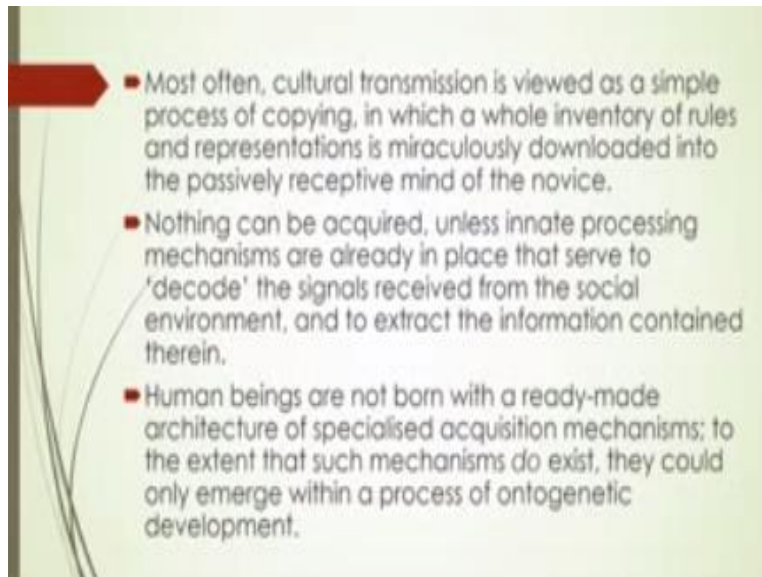
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Of use that is the practicability or the practicality of how it is being used, now contrast to or between the two forms of learning that is social and individual it is talked about by a Richardson and Boyd in social learning these are the absorbs the underlying rules principles of hunting from directly knowledgeable members of community in individual learning and contradictions that he puts them to use in the course of his activities in the environment.

That is the individual is much more equipped and in a much more advantaged position with sort of knowledge is being used to enhance in his adaptiveness behavior in that particular environment. Now most often time this sort of cultural transmission is usually seen to be simple process.

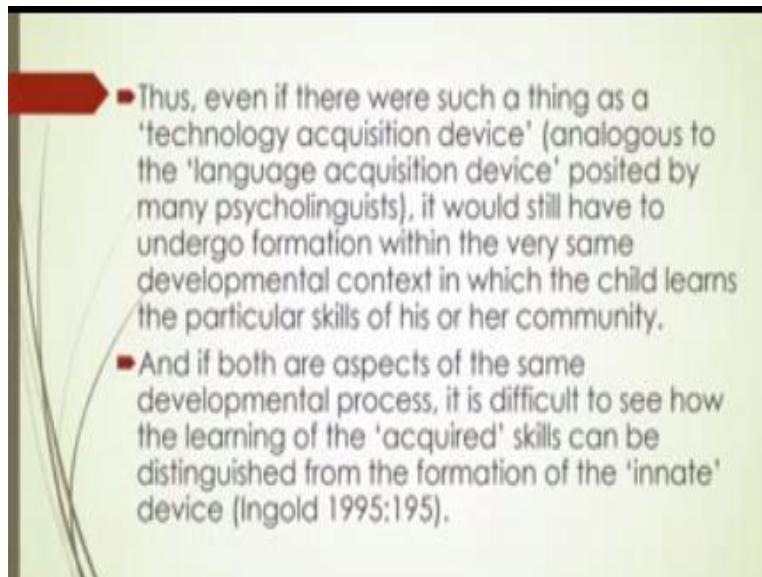
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- Most often, cultural transmission is viewed as a simple process of copying, in which a whole inventory of rules and representations is miraculously downloaded into the passively receptive mind of the novice.
  - Nothing can be acquired, unless innate processing mechanisms are already in place that serve to 'decode' the signals received from the social environment, and to extract the information contained therein.
  - Human beings are not born with a ready-made architecture of specialised acquisition mechanisms; to the extent that such mechanisms do exist, they could only emerge within a process of ontogenetic development.

Of copying and in which a whole inventory of rules and representation is sort of being passed on handed down to the receptive mind of the novice, that is things are being accept and conformed and practices without questioning or rather not trying to be sort of a non innovative. Now unless this idea of decoding this signals is sort of received from the social environment and to extract this information which is contained in that particular environment or depth setting, human beings again are not born with a readymade architecture unlike you know the non humans.

They are specialized acquisitions of this mechanism and which are to deal with the external setting not just confined with the family now these emerges as a process of on to the neck development.

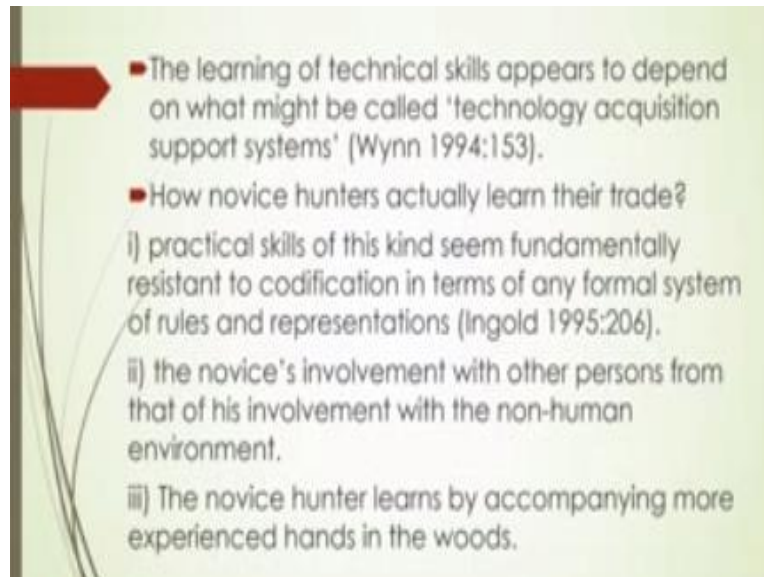
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Now you have studied the case and if such as how the technology is being a cure, now through the use of different kind of semantics like the language acquisition device which in a way is sort of to have undergo certain kind of affirmations in the individual through that process of socialization of that particular skills which is being learned through their elders or the in order of ancestors and at the same time if you look at both aspects in these developmental processes.

It is sometimes difficult to defend it and to look at how learning of these particular skills, which is being a cure, can be you know distinguished from the formation of this unique device, which is pretty much you know I talked about buy in gold in terms of his.

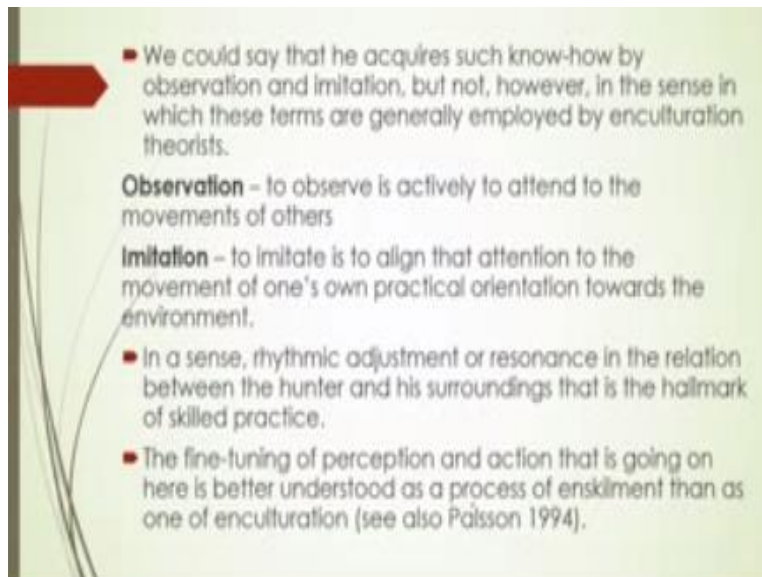
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How the skillful learning of an individual is engaged anything, now this parts to learning technical skills in a way depends on what might default this technology actually using support system. Now if you look at as we are talking about how the normal stems to you know are being receptive are being conformist and then they learn what is being handed down, how does this the novice hunter in a way tries to replicate if not bring all this knowledge into practice this practical skills in a way is sometimes seem to be you know fundamentally quite resistance to the kind of sort of qualifications.

How it is being encoded in terms of any formal systems of rules and representations and also the noise involvement with other members of the society and also with the non-human environment and finally, the no noise Huntress learns by accompanying more experienced hands in the woods that is it is more of you know adapting and then trying to use that particular knowledge in the environment. Therefore we can in a way say that.

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- We could say that he acquires such know-how by observation and imitation, but not, however, in the sense in which these terms are generally employed by enculturation theorists.

**Observation** - to observe is actively to attend to the movements of others

**Imitation** - to imitate is to align that attention to the movement of one's own practical orientation towards the environment.

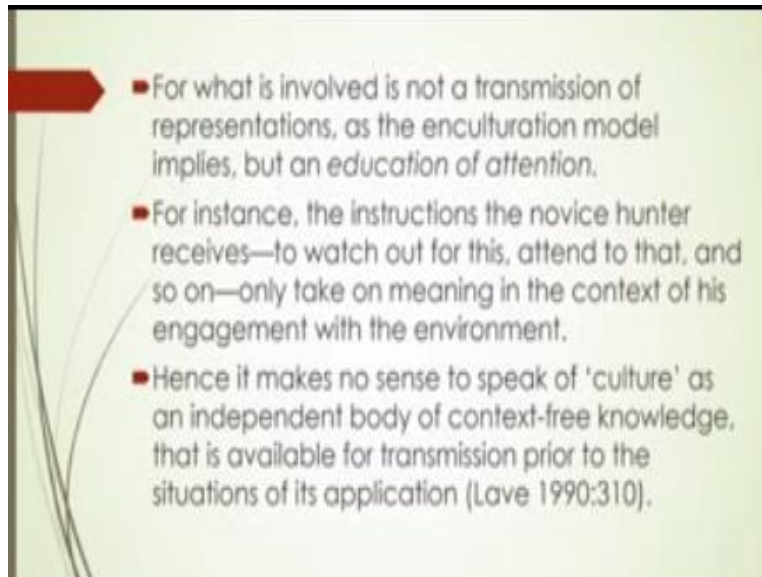
- In a sense, rhythmic adjustment or resonance in the relation between the hunter and his surroundings that is the hallmark of skilled practice.
- The fine-tuning of perception and action that is going on here is better understood as a process of enskilment than as one of enculturation (see also Palsson 1994).

This actual knowledge of know how is usually being learned through observations and limitations, how relations are generally employed by this enculturation series. Now what is this observations and mutations how is this being sort of adapted by the sort of the nobles. Now observation is nothing but to you know observe actively to attend the movement to others that is not just what is the word which is being here but even the vulnerable kind of communications or ideas which is being passed on so it is more of practical in nature.

And imitation is to sort of the attention to the movement of one is practical orientation towards the environment. So in essence this sort of for one the adjustment or resonance in relation to this the hunters and his surroundings is the hallmark of skilled practices, it is what in we will talk about the skill and skill meant. Therefore these ideas which are seem to be in fine teaming perception and accent is going for a better understood and also this as a process of this skill Mendes then as Wonder enculturation.



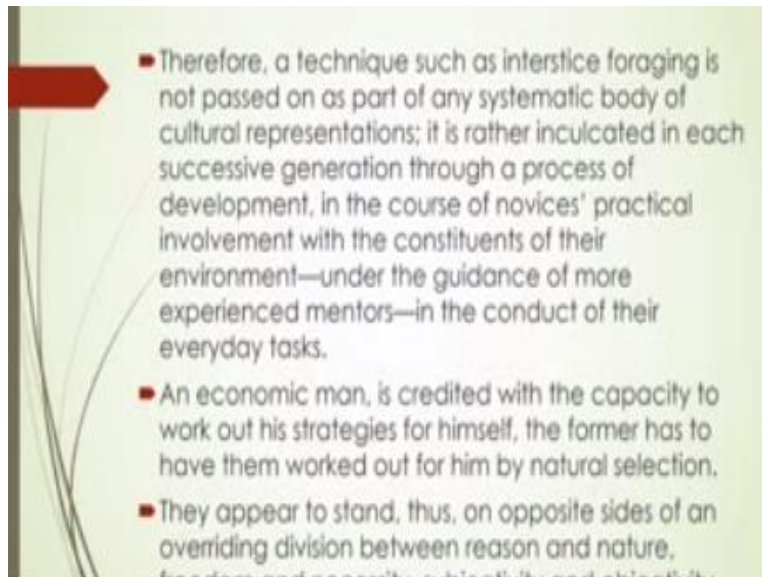
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Now for what is involved is not a transmission of our representations as the and cultures and model implies but this is rather to be understood on the education of attention that is through observation and imitation. Now for instance the instruction which is being provided to the novice hunter what he receives is to watch out for these to attend to that and so on that is to work out and to attend and also to practice that particular ideas into action and to sort of demonstrate that meaning in the context of heels and gateman with environment.

Hence this sort of an skill meant makes no sense to speak of culture as an independent body of context-free knowledge, that is available for transmission prior to the situation of its applications. Therefore is a technique such as inter Styles phrasings or is not just passed on.

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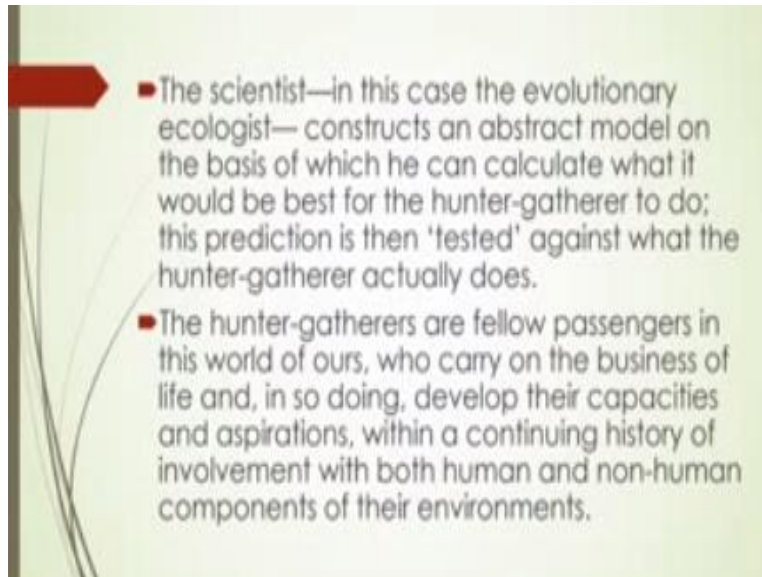


As a part of any systematic body of cultural presentation rather, it is inculcated in its successive generation through a process of development in the course of no wise practical and work involvement is a confidence of their environment, that is it is important for once to practice that in a particular environment otherwise that particular knowledge will be irrelevant or redundant. Therefore under the guidance of those mentors they are able to replicate and then put those skills into practice.

Now if we go back to that economic man is rather an economic man is credited with the capacity to work out his strategies for himself, no doubt that idea or knowledge may be passed on to him but that compared to the no Ice man this economic man is much more dynamic in character and then they come up with certain kind of innovative ideas and strategies for himself that work out for him by through natural selection.

And they happens to you know appear and stand in a much more overriding in a better position than others. Now to sort of conclude the scientists in the case of these evolutionary colleges tends.

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To engage in constructing and abstract models on the best which can sort of calculate what it would be best for a hunter and gatherer to do and this sort of prediction is then tested against what the hunter gets actually done. So it is really you know like different from what the idea of a native societies sort of knowledge and the scientists knowledge is different again the a together are in a way sort of group of members, who are more or less lying on carrying this business of life and in a much more you know in a content manner.

And which do not have much of a very ambitious in terms of accumulations of you know resources. So they move on within this sort of a continual process of involvement in both these human and non-human components of their environment. So I stopped in this and over here in this lecture we tends to look at the kind of boundaries which are normally looked at and discussed and for further understanding and readings you can read for these readings by Foley and the team in gold, so that you can have much more extensive knowledge thank you.

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