

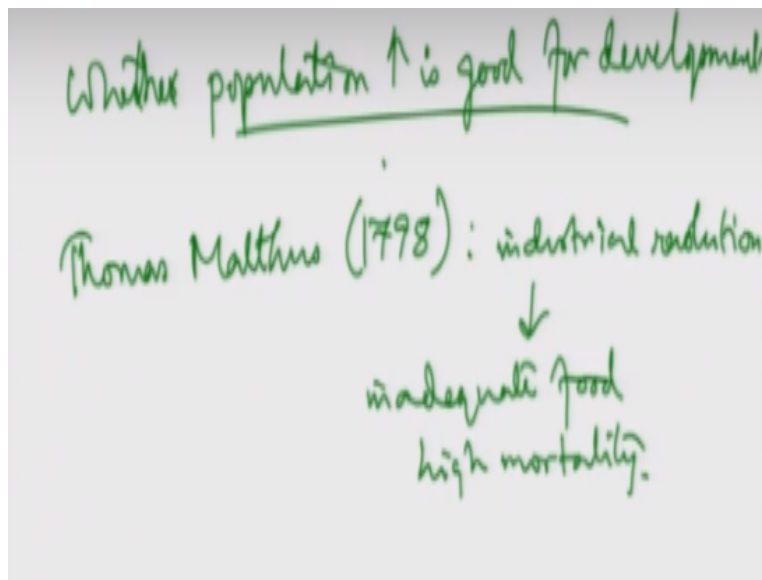
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Lecture -50

Theories Related to Fertility, Population Growth and Socio-Economic Advancements

Now as we are talking about the populations composition population and rise population decreases you know all these things and its economic impact. So, what there was remains a question that with a population increase is good or not you know.

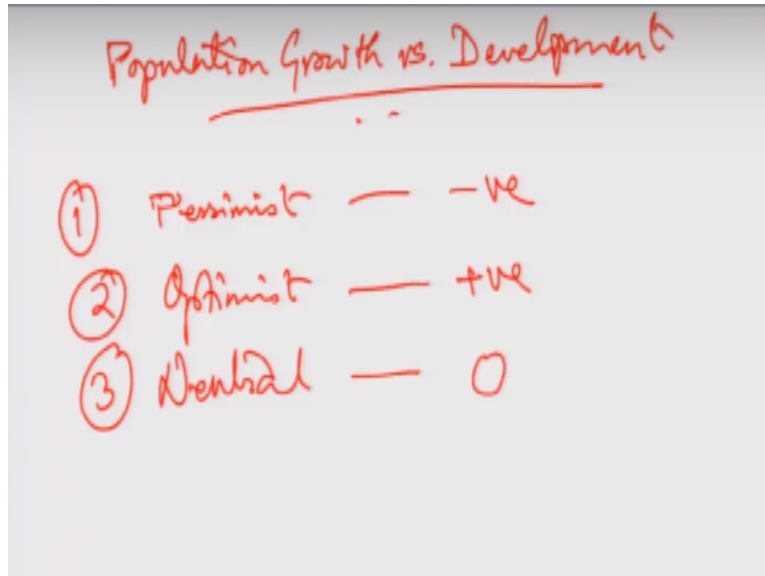
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So, a population way though population rise is good for development Maltas Thomas Maltas was a priest in 1798 just when this in you know the industrial revolution is happening. During this industrial revolution or just before industrial revolution England was characterized with this similar situation with inadequate food and all high mortality. Yeah so, he said that population growth is not good for the development.

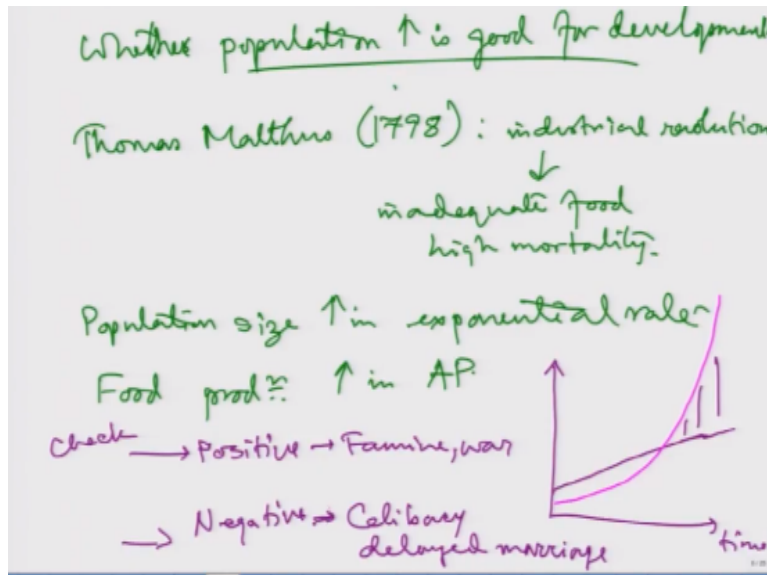
Yes and this particular school Malthusian school is known as basically pessimists school. I will just go to a different slide.

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And we will say this this debate of population versus population growth versus development has basically 3 schools. The number one is optimist I mean sorry pessimists second optimist third neutral the pessimist says it is not good we are negative optimists says positive neutral is 0. So, they do not bother yeah.

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So, what this pessimist says as Malthusian view or Maltas that industrial revolution is not good at all for the economy. And then there should be a check at and then he said see why it is not good sorry the population growth is not good he says Why it is not good because the population size increases you know geometrical progression yeah in geometrical progression while they are in the exponential rate here.

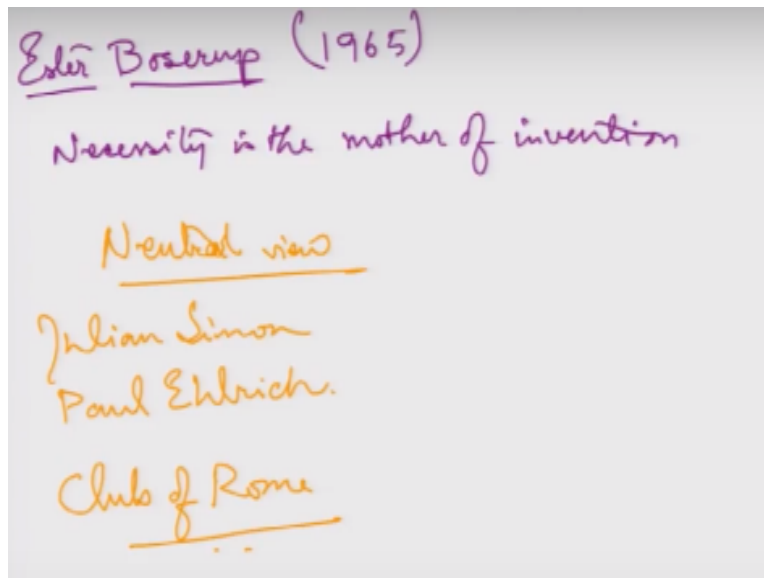
I will say exponential rate while food production increases in arithmetic progression. So, what we see that over the time you know our food production will increase like this. And our population production population growth will increase like this so after a certain while we may not have enough food and we have a shortage of food. And that is not good for the society right So, that is what he says that we need to have checks now.

When he talk about the checks he was you know as a priest. So, he never supported this and then back those ages he never supported this contraception and all. So, he said there are 2 kinds of checks one is positive check and one is negative check is the ways to control the population size the positive check and the negative check. The positive checks are basically you know the famines. Wars, diseases which will decrease the population a lot of mortality right.

Whereas the negative checks are celibacy you know delaying marriage all this behavior but not contraception. Just so this is a positive checks are famine, war this is celibacy delayed marriage and that is how they should control the population you know and that is how they should decrease the at least decrease the population size or fertility level. Yeah, the mortality is also always very high at that time.

So, it is like the positive check the negative check the negative check is basically out of the poor moral restraint yeah. So, what will the criticism say is that this theory is too simplistic and then it has not taken any scientific development in its country under its consideration. So, there comes the optimistic approach.

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The optimistic approach is led by the Boserup Ester Boserup yeah in only 1965 and she says that necessity is the mother of Invention. When we see the struggle you know that our we do not have enough food we will intervene invention yeah. We will intervene, and we will invent something so and there comes the science. So, then that is what happened in India as well during green revolution after these famines and all.

Just after independence Bengal famine Bihar famine in 1960 late 1960s and 1970s we see that green revolution which increased the and then we saw white that is different anyways we saw the green revolution than that that increase the productivity the agriculture production by a large margin you know multiple folds. So, and then she discusses the technology if you know the population is high and there is a requirement people are you know intelligent.

So, they will bring in technology and the technology will solve this will solve the problem and based on the problem in a particular society the intensity of new methods will be determined. That how intensive will it be so again the Boserup theories first limitation or the drawback was that it can only be it can only be adopted by a small community. And it can be really, and every particular population has different ideologies different level of development.

So, the invention capability is also limited in some population and if there is an overpopulation there is a chaos and then the technology is a you know capital intensive it can be capital intensive

so and that that technology bringing the technology may also be a challenge because of overpopulation. So, it has its own limitation whereas you know the neutral view in Julian Simon, Paul Elrich they actually supported this Malthusian view.

But at the same time they say that there is demographic dividend which can eventually help us some schools say Rome schools and I mean club of Rome say they said that you know the resource utilization is a challenge because of this the club of Rome yeah. Because of this current trained if the resource utilization is not managed properly or regulated properly that can create or havoc and people may face.

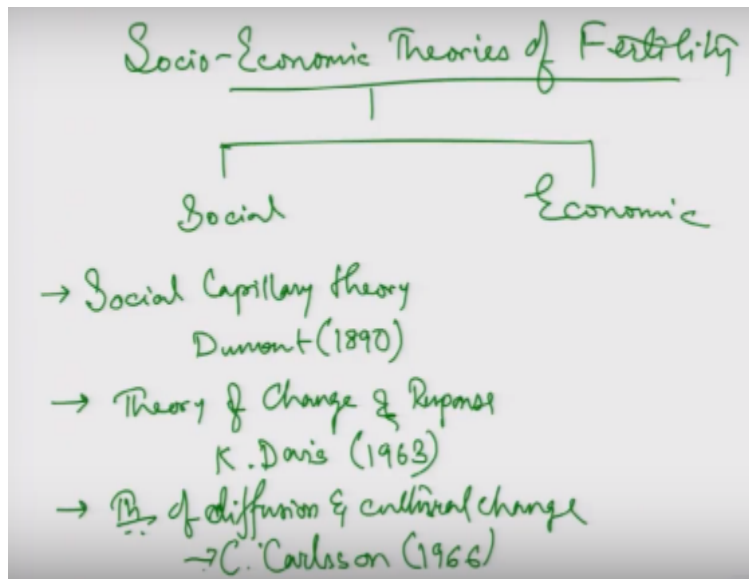
You know the future generations may face heavy difficulty to find their own resources to survive. But at the same time again this technology may intervene and bring in our global equilibrium. So, this is a neutral view which talks about both the positive side and in the negative side of this population growth. Now we will basically we have been in this session have been discussing on the you know the population.

And the population change, the composition, the population size and its impact on development this once we are discussing about this you know the population size and its demographic variables such as birth rate and death rate. So, once you know the birth the death is a technology or the advancement scientific advancement. But the birth that is purely our rational behavior or of an irrational, but you know that is in the bad days.

Today with awareness with the understanding birthrate with a lower mortality rate. Birth rate is a rational choice even in the lower level of development birth rate can be a rational choice. Now like birth rate means the family size yeah it can be a rational choice and this rational choice are often because every individual is an economic agent and economic agent will be rational in nature and then the fertility behavior of an individual.

Or of a household of a family of a couple is directly associated with their economic aspirations or you know so they will determine the number of child looking at looking at the their economic aspirations.

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Now so this theory are known as fertility or socio economic theory of fertility. And this socio economic theories are basically broadly 2 groups one is social another one is economic. Yeah so in social theories we have social capillary theory by Dumont in back in 1890. Then theory of by Kingsley Davis in 1963 and then theory of diffusion and cultural change diffusion and cultural change by C Carlson.

Anyways so what this theories take tell these theories talk about the you know the sociology and your social impact on a social capillary says this is capillary action the lower the smaller is the family size the firster will be the movement upward movement right. That is the movement towards development or they will be able to achieve a larger level of you know economic aspirations yeah consumer demand.

So, social capillary theory says when a person really want a family realizes that with smaller the family size and we can achieve a social high you know in terms of economic achievements. Then they can opt for this smaller family size, but it is over simplistic and really does not because the society is so rigid. They do not really change overnight or even over a period of time, so it takes time.

So, there was the first you know first theory related to fertility theories then Kingsley Davis talked

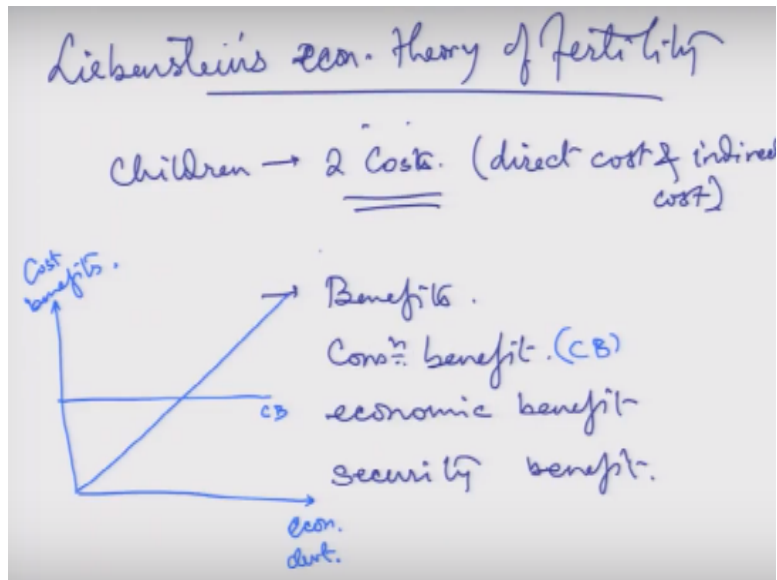
about the theory of change and response which is primarily that when a particular community changes with the urbanization that you know they see that the number of family size has decreased. So, I mean number of death has decreased so the number of children are increasing so and we are finding it difficult to manage.

So, the will of people who are aware they will decrease the family size and the because they decrease the family size they uplift themselves in the societal hierarchy and then the slowly this will be trans you know looked at and she changed the behavioral pattern will also be changed or transfused towards the underprivileged section you know poorer and, in the children, the same is the theory of diffusion.

And cultural change or cultural lag a culture that is first one particular culture or the will of urban rich people change and then slowly it moves to the moves to the poorer people. So, these 2 or 3 change and response and diffusion and cultural change are almost similar yeah. Whereas in terms of economic theories we have prominently 2 3 theories one is Leibenstein theory and other one is Gary Beckers theory.

And then the third one is third one is Caldwell theory Easterlins theory. So, we will you know discuss one by one the first one we will discuss about Leibenstein instance cost utility theory yeah.

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So, Leibenstein economic theory of fertility so what it says that they said that it is a cost utility analysis simply yeah. This cost utility analysis based on the cost childrens number Leibenstein do cost utility analysis. he says that children will have 2 types of costs one is direct cost and indirect cost yeah. Whereas children these are the costs and the benefits with they will have multiple benefits.

Yes, this benefits can be a consumption benefit the satisfaction this can be an economic benefit this can be a security benefit at the elderly and old age and all. So, broadly will keep like this yeah three benefits. So, what we see that you know in terms of say if we try to plot them graphically what we find is this development your economic development of the fertility of the family this is the maybe the number of child.

Or we will first keep the cost and benefits and then the cost increases with the number of child and with the economic development. Because the more the children they will try to you know invest more and more so and then the this is my consumption benefit, I will just write CB this is my cost this is my cost curve, and this is my consumption benefit which is which remains same you know for a poor family.

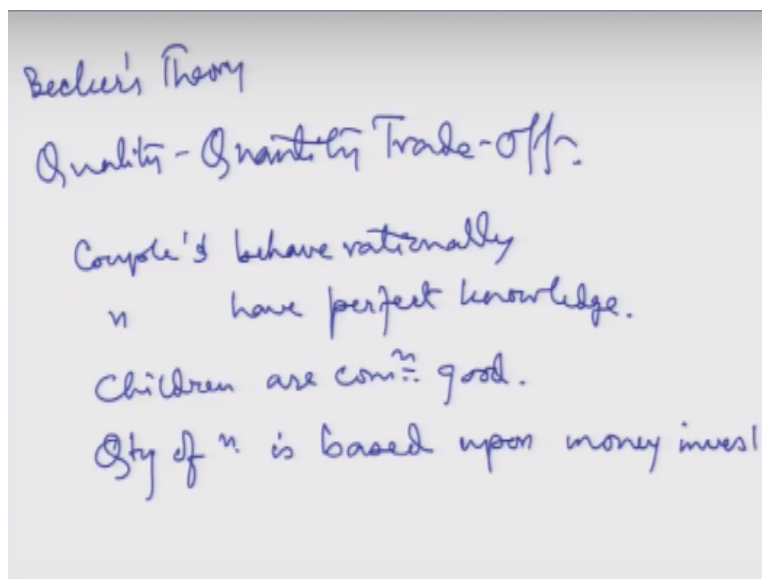
And therefore for a rich family the same kind of benefit for each child they will have so I mean the satisfaction the life, the love, the affection yes what we find is that the economy benefit will

come down with the development yes and social benefit should also come down. But it will be higher because even if they are rich, but they will still depend upon their children a daily. Because they are psycho psychologically weak you know.

So, it can be it can be eventually like this anything you know here so, or you can it varies from place to place of the society to society. You can keep economic benefits like this and then your social benefit like this very close to each other. So, it really does not matter and then you will choose whether at which point you know your cost and benefit are matching. You know to get the total benefits, so this is the social benefit is the economic benefit.

And then the total cost so and you will not with the higher the development you want to go for than our large number of children. You would not increase the children child size or the family size yeah that is primarily because your cost is more you are investing more when the number of your benefitted the lower level of economic development your benefit is more.

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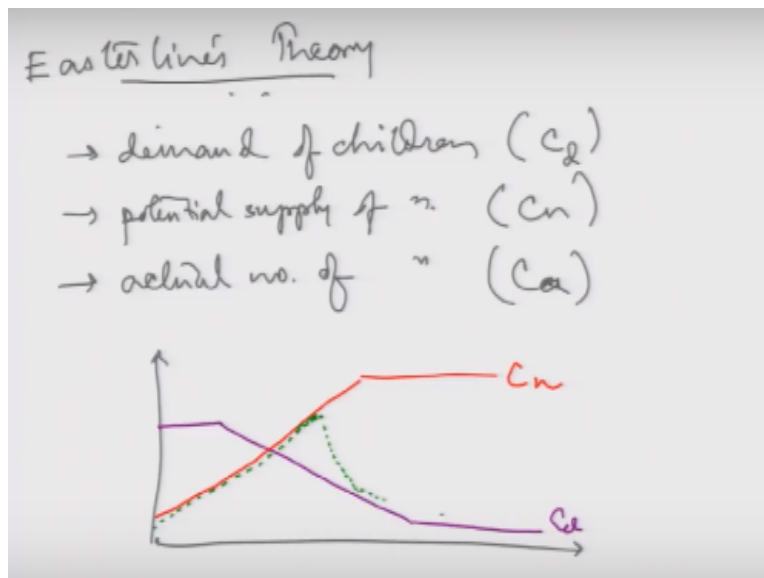


The second one is Beckers theory Gary Becker theory and he says that it is a quality quantity trade of quality quantity trade off. So, he assumes couples behave rationally and so they are economic agent they have couples have perfect knowledge. Children are consumption good and quantity of children is based upon money invested that means if I invest a lot of money to get my children educated and for better health I will you know keep my number of child limited.

So, higher the quality lower is the quantity if my you know I do not really want to spend more on the quality of the child do not want to send them in high you know big school sort of I do not really want them to educate and I do not really want to spend for their immunization and all these things. I am not investing for their better health that means children are my productive agent and I do not really bother with the quantity will be high.

So, lower the quantity higher the quality higher the quantity lower the quality that is known as quality quantity tradeoff in by Becker yeah baker.

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And then the final one is Easterlins theory and Easterlins theory basically talks about you know the contraception use and what he says this is again the it is like it depends upon demand of the children potential supply of children and actual children actual number of children. So, this is CD this is CN, and this is CA. So, if we plot a graphical what we find you know this is the over here this is the quantity.

Or this is my demand curve which comes down to it remains the same and with the development it comes down and this is my potential supply. So, this is my CD this is my potential supply which goes up and up and after a certain while that is that is called rate population it does not increase anymore, and this is my actual supply. So, I do not have idea about contraception I do

not have idea about the development.

So, it will go up with the with the you know supply and then once I get the knowledge I get the idea about contraception it falls down and follow the actual supply. So, this is my actual supply and a doubling over lower level where the demand and supply is high at the lower level of development that total number of children will be here. But at then when the with the economic development the total number of children will be here.

You know and then the number of children will be lower. So, this is about you know it does not follow with the development potential supply is not being followed. It is being followed with a realization, awareness and use of contraception. They will finally focus upon the actual supply and where the demand and actual supply will match and then you know the actual supply we invest the demand and then slowly it will come down.

Yeah thank you very much so this is all about all of you know economic development and lecture and this is the end of this course of health economics. I wish you all the best stay happy, thank you very much.