Introduction to Logic
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Lecture - 12
Aristotle Theory of Syllogisms-1

Continuation to the last lecture, where we started Aristotle syllogistic logic; there we discussed various kinds of categorical prepositions; we a proposition can be like this, all in are mortal i proposition is some in are mortal and o proposition is some in are not mortal and e proposition stands for in a not men are mortal. So, depending upon distribute what and all. We have classified these categorical propositions, in terms of quality and quantity.

So, these categorical propositions combine, in certain way and they will form categorical syllogism and all categorical syllogism consist of at least 2 categorical proposition as premises and another categorical prepositions as conclusion. So, today we will be discussing about Aristotelian theory of categorical Syllogisms and then will also discuss about various valid rules of inference. And then we also discuss about immediate inferences etcetera. So, to start with what we mean by a categorical Syllogism.

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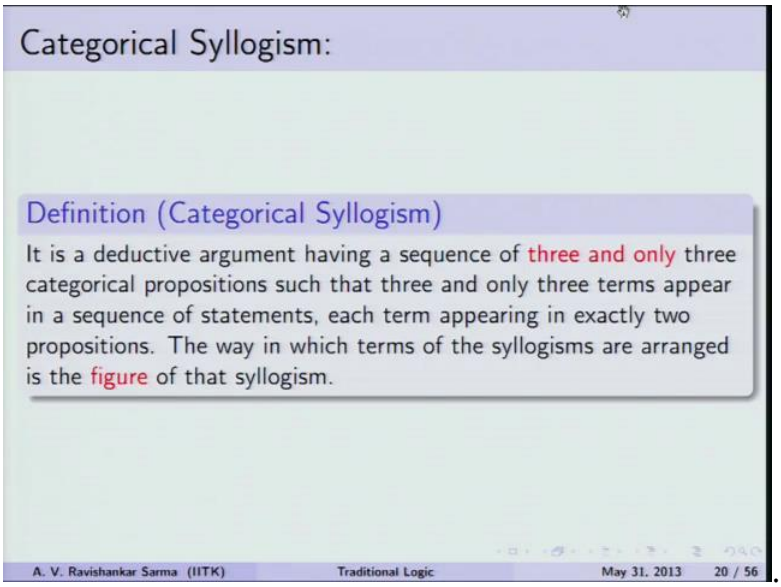

So, the definition of categorical syllogism is like this: it is; obviously, a deductive argument having a sequence of 3 and only 3 categorical propositions and all. In this categorical syllogism there should be only 3 and only 3 propositions out of which 2 will serves premises and the other 1 will serve as a conclusion. So, it is the deductive argument in the sense that conclusion miss silly follows from the premises and all. And there is no new information in their conclusion etcetera.

All the properties of deductive arguments works well here and not only that thing not only that thing that they have only 3 categorical propositions, but they have 3 and only 3 terms appear in the sequence of the statements; for example, any sentence any categorical proposition has 2 term subject and predicate term, but the 3 terms at we are referring to are that is: subject term and predicate term and the middle term. So, each 1 of this terms a accurse at least twice in this 3 propositions. So, each term appearing in exactly 2 propositions, the way in which these term the terms syllogism are arrange is what we call it as the figure of the Syllogism.

So, the idea here is that middle terms is the term which, you will see only in the premises and whereas, subject and predicate terms; you will see at least 1 of the premises. and in 1 of their conclusion and all. So, these terms at least occurs twice in the whole argument and all. The only thing which you need to note is that middle term, will not appear in the conclusion.

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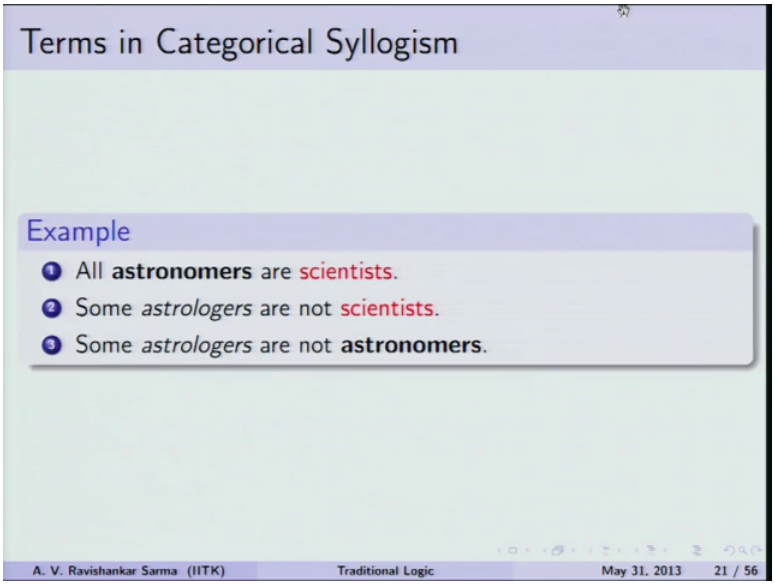

So, one example of a categorical syllogism is this thing; suppose, if you say all astronaut astronomers are scientists, some astrologers are not scientists and from that third proposition is a conclusion that is: some astrologers are not astronomers. So, this forms a categorical Syllogism. Now, Aristotle has presented of syllogism, in which you know we will come to know how whether, not some astrologers are are not astronomer's follows from the 2 given categorical propositions that are: all astronomers are scientists, some astrologers are not scientists. So, for that what, we need to do is first we need to identify the terms of existing in this categorical Syllogism.

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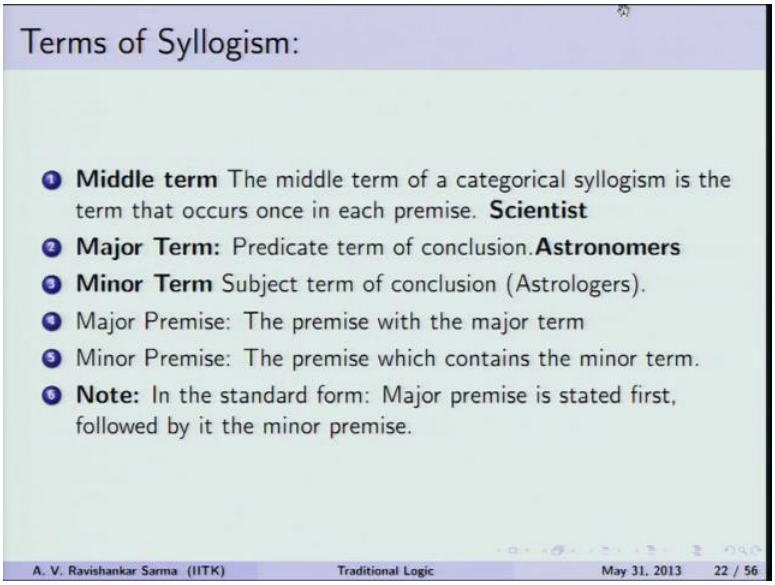

So, these are like this. So, what I said, in the beginning was middle term is a term which exist at least, which exist only in the premises, but you will not find it in the conclusion. So, the middle terms of a categorical syllogism is the term that occurs once in each premises it occurs only in the premises, but you did not occur in the conclusion. So, in this case the 1 which is in the red her red color is the 1 which, you will see in the premises. So, all astronomers are scientists and some astrologers are not scientists; they are considered to be premises and the third 1 here is the conclusion.

So, scientist is a term which occurs only in the premises that is why, it is called as a middle term. And first we need to observe the conclusion; the conclusion here is some astrologers are not astronomers. So, here the subject term is astrologer, we are talking about the conclusion and the predicate term of the conclusion is astronomers. So, whenever, the predicate term occurs in the premise that is considered to be the major premises whenever, the subject term occurs in your premises and that is called as minor premises.

The other way around you can say that astrologers is the subject term is called as minor term and astronomers is considered as a major term where is the middle term is scientist. So, how do why we need to find out all these things; we need to find out what is the

major premises and what is a minor premises. Major premise is a premise, in which you will find the predicate term the predicate term here is astronomers. So, as you will see here clearly, in this example the first prime's astronomer figures out. So, that is why that proposition that categorical proposition all.

All astronomers scientist is considered to be in major premises and a subject of a conclusions that is: astrologist here, is consider to be the miner term and whenever, this miner term is because, the that categorical preposition consider to be the premises, which is defines this categorical propose is consider to be in miner promise. So, 1 is a major promise and 2 is a minor promise and then up course and third 1 is a conclusions. It is a standard conversion that it should insure that; always is state a major promise that followed by that major promise and up course, there is a conclusion.

So, why are you studying the conclusion, which object whether this particular kind of syllogism a group of categorical prepositions out of which 2 or serving in premises in the other 1 is serving as a conclusion. So, would we know that the premises leading to the conclusion that makes this syllogism value is what is our motivation and then Aristotle has, with wonderful, which is very closer to the natural language and then Aristotle is come out with theory of theorism in this way.

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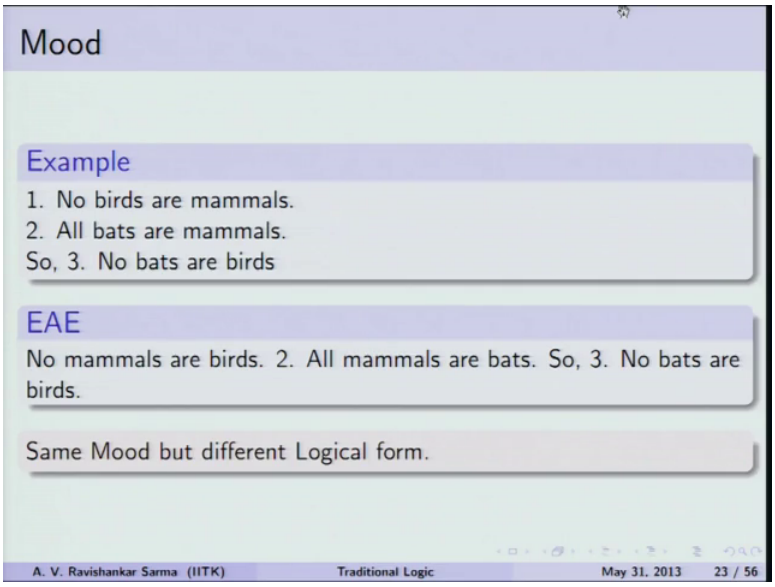

The first and some, which you know before present this Aristotle theory of syllogism is another concept; which is called as mood. Mood is not the 1 which you are talking about which mood and what kind of mood here in this is a different kind of thing. It is a form of argument in. So, for example, if a have no birds are normal, all that are normal. So, no bad are birds. The first preposition is a e preposition and second 1 is a preposition; that means, all men are mortal like that and the third 1 is e preposition. So, the mood of this preposition is e a e.

So, another kind of category Syllogism, which as which is like this no mammals are bird's; that is a e preposition all mammals are that is a preposition and the other 1 no bats are birds that is usually, sword as conclusion. So, that is a e preposition. So, this is also called as e a e preposition, but both of this syllogism that have the same mood, but logical formula promise different in all. So, although they have the same mood in all e a e, but the logical form is sense that how the middle term is distributed excetra and all; there are little bit different from the second term.

So, in the first argument the middle term take the position of the dedicate and in the case of the second categorical syllogism the middle term takes the position of the subject. So, these are things in although 2 categorical syllogism have same kind of mood, but the logical form might be different. So, this is the first thing which is mean to know first thing which you know that 4 kinds of categorical prepositions a, e, i, n, o and depending upon the quality and we have classify in to different kind of categorical prepositions and then these categorical preposition combined in certain way and they will form some kind of thing which we are calling it has a mood. So, same mood, but if can different logical forms.

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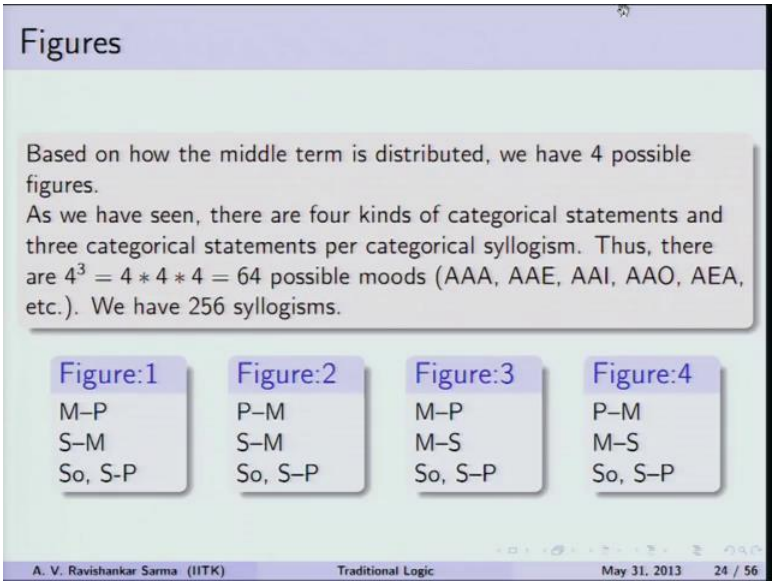

So, now based on how the middle term is distributed; what is the middle term occurs twice in the middle term premises. So that you, will not fine it in the conclusion; suppose, in the categorical preposition, we find a middle time in the conclusion that is not a valid kind first of all forget about the validity, you should not use the middle term should not figure out in the conclusion. So, now how the middle term is distributed according to settle, we have 4 solid figure are mean combination of different kind of categorical prepositions and in this categorical preposition; what we need to look for these where the middle term is based. So, there are 4 kind of categorical statement are prepositions A, E I and O and there are 3 categorical statements for categorical; that means, a any kind of categorical syllogism will should have only 3 categorical prepositions; you might ask what happen if I have more than 3 categorical preposition in.

So, these will reduce to only 2 way. For example all man motoral all man; all donkeys are cat and all cats are dogs something like that 3 preposition are here; then first 2 combine will form another categorical prepositions. And that categorical preposition combined with fourth 1 and ultimately, you will have 2 categorical prepositions and then fourth 1 is a conclusion. If you have more than two categorical prepositions off course, in problem to the Aristotle model in off which looks nicely for categorical prepositions 3 categorical prepositions out of which 1 is a conclusions.

So, now we have 4 categorical prepositions A, E, I and O and you have only 3 categorical prepositions; which is forms a syllogism that is way we have 4 tube that is 4 into 4 into 4 64 possible moods which are possible, but each and every figure. So, what is a figure yes nicely come of with a wonderful idea that depending upon how the middle term is distributed, in this categorical prepositions this classify into 4 different figures. As you observe it in this figures clearly that, the conclusion is always in the in the format in the object and predicated.

But, the only thing is different here is the middle term in the figure for example, in the first figure, in the first premises middle term occupy the position of the subject. And in the second premise of first figure number 1 middle term occupy the position of a predicate and in figure 2, middle term occupies the position of predicate. So, each categorical preposition has subject in predication in any sentence you will have the subject predicate for example, all menu are motor maturity is a tribute to the measure to all men is a subject all men is a mortality is nothing, but some kind of property as.

So, as will see clearly, in this figures; obviously, the conclusion is always in the in the form and subject of predicate, but only thing which is different here is the position of the middle term is different in all these figures. So, for example, moods can be like this AAA, AAE, AAI, AAO, AEA over any particular kind of combinations will form particular kind of mood; cab be EEE are EAA all these things; will form particular kind of mood.

So, each figure will have 64 possible moods and then the first figure will have 64 mood and second figure will have 64 and the figure 3 also 64 and 65 ultimately, we will have 256 kilo provision possible is a wonderful construction of Aristotle. There are 5 things which are exiting in all the natural science and also in the periodic table, which is develop by mandolin which as very syntific in nature then it Conway's lot of information and. So, 1 which are going to see we are seeing a right know is based on; how the middle term is distributed yes classifies sysyllogism in nicely into 4 groups some kind of a minology we find it in mendolis period table are may be the origin of bengine structure extra these are wonderful innovations and all.

There is something great about these kinds of figures. So, only 256 kiloism can be possible. So, out of that Aristotle is come out this the some kind of valid rules of syllogism with which it would come to the fact that out of this 256 syllogism 15 are unconditionally valid; I talk about I mean; by unconditional validity and minor construct to be conditionally valid so; that means, according to Aristotle theory of syllogism 24 out of 56 syllogism are consider to be valid syllogisms not all kind of combinations, will give us valid syllogism that for example, if we as AEEE for example, that may not be a valid kind of syllogism; however, it falls figure 1 figure 2 figure 3 anything.

So, now, what will going to do yeah we are just going to see how the Aristotle is classified his syllogism into this 4 different figures. So, there are 1 more thing, which you need to note the first figure going to know the most standard kind of thing. So, all the mood set of falling in figure 2 figure 3 figure 4 can be reduced to the figure 1 and all; that means,. So, this is consider to be the most standard kind of figure that, you will commonly seen the certain theory of criticism and all.

The thing which fall in figure 2 figure 3 extra see; if you have a e 2; that means, that stand for categorical syllogism AAEA and it falls in figure number 2; that means, the middle term will be occupying the position of predicate.

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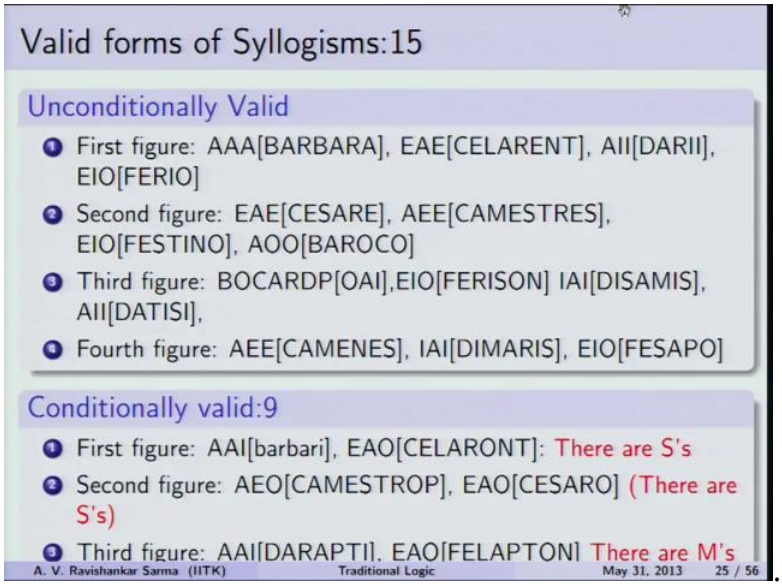

So, these are some of the things; which settle as come off with now we need to find out how Aristotle has come off with the trinity of only these 15 syllogism, which are constructed to be un conditionally value. So, I will go it has the little bit of, but Aristotle is named this syllogism with nice names and Greek names. So, the first figure only these 4 are valid EEE. There are some place to remember this particular kind of syllogism this are called as mnemonic. So, these use lot of mnemonics to a kind of mugging of this whole kind of thing if remember this mnemonic and all; this like a poem.

So, remember the poem can understand everything about these validity of a syllogism. So, I will going to the detail of this poem little bit later. So, which is consider to be is syllogistic poem; which is quite popular. So, the first 1 has a named Barbara. So, as you see here clearly the whole accurate term Barbara that is a and a this is the holes A E I O U and ovals in all whenever, you find this ovals corresponding. So, this like of thing. So, that is having a form another thing is syllorent; that means, in this syllorent the first oval is equal e second oval is A and the third oval that you come across in the particular order is E.

So, that is way it is E E A E categorical prepositions and are E is a first oval is A and the second oval is I and I. So, not only thing that its ovals is correspond to the mood of A syllogism which are consider the valid syllogism and all. But the other letter consonant is also are going to some way information here. So, which will talk about when we analyze syllogistic poem into great architect, but our concerned now to know when this syllogism are going to be valid and when syllogism are going to be invalid; that means, when the argument is valid and the argument is invalid in the same way second figure, were the middle term occupy the dedicate positions EAE AEE EIO AOO.

These are consider be consider to be the moods which are is going to be unconditional valid. So, the other thing is OAI EIO IIA III is consider to be valid in the third figure the fourth figure is EII and EIO. So, these are some of the thing; which you need to which Aristotle come over with and these are unconditional these are we are some kind of conditionally valid syllogism. So, they are like this, in the first figure in addition to AAE EAI AIO etcetera and all. These are also considered to be condition value it depends on the subject of is empty or nonempty.

So, Aristotle 1 important thing which need to note is the Aristotle takes it from granted that all the terms are considered to be nonempty are not going to be empty set for example, if you say an all this is not permitted in Aristotle here logic, because it is an empty side set of any calls is do not exist to set of goes set of empires etcetera; all this things are empty side it would not exist. So, that is an empty set which you are not supposed to take in to consideration, but modern logic take in to consideration for example, we can take into consideration in all unique answer intelligent that; may be assume to true and all, but according to Aristotle.

If you assume that thing to be true then it leads to fact that there exit some unique of which are consider to be intelligent; that means, unique and actually exist which is not the case. So, an empty set. So, in Aristotle theory of syllogism that is not permitted which sets limits to Aristotle theory of syllogism which talk about it when we discuss existentially import in greater let us particular kind of problem. So, what we are seeing is if this movement this is that classified this syllogism to 4 different figure and then this is that 64 moods I mean; that is a corresponding to some kind of argument are syllogism that are syllogism.

Then out of this 64 in figure 1 there all 4 future unconditionally value and 2 or unconditionally valid term. So, like this, we have 15 plus 9; 24 syllogism are going to be valid out of 256 kind of syllogism that are possible.

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So, here is a poem which did those old is they could remember this the validity of syllogism with the help of the poem inuff. So, the poem in first appearance is like this and second appearance is valid 1 which; were going to take in to consideration this is all in a Greak names. So, if you can bai hart this particular kind of poem and you can understand all the poem is 4 kind of is syllogism that we are seen l. So, first 1 is Barbara celarent sarii ferio baralipton; that means.

The first kind of figure cesare campestres festino baroco these kind of second figure teria grande sonans recitat darapati some kind of thing actual translation you do not know what it is, in that third figure there of the fallen that is e and all. These gratin Latin names which are going to be valid syllogism and then followed by that which you have insuper addit Bramantip, Camenes, Dimaris, Fesapo, Fresison extra. So, this is not what is of accordance to of for is you can come up with your own mnemonic cannot, but the idea is that is to focus on the ovel is existing in Latin words and. So, they 12 as what kind of silolism is validing what kind of figure this poem is analyze little bit later.

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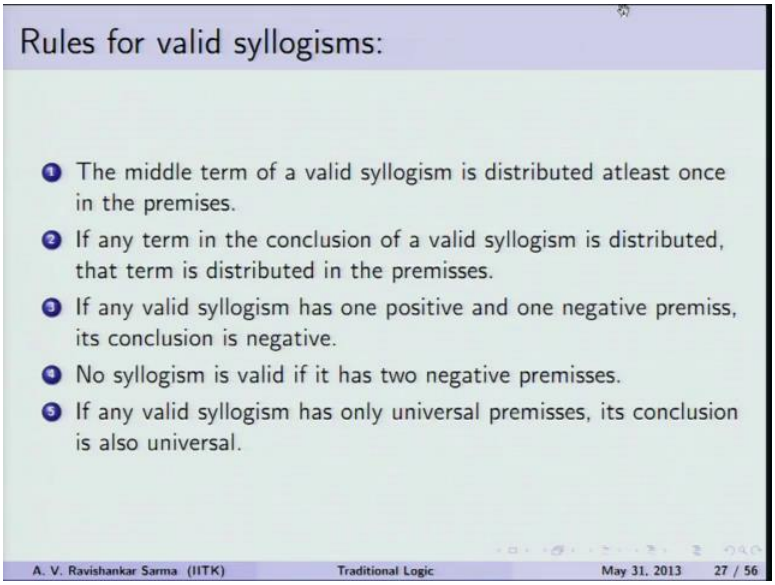

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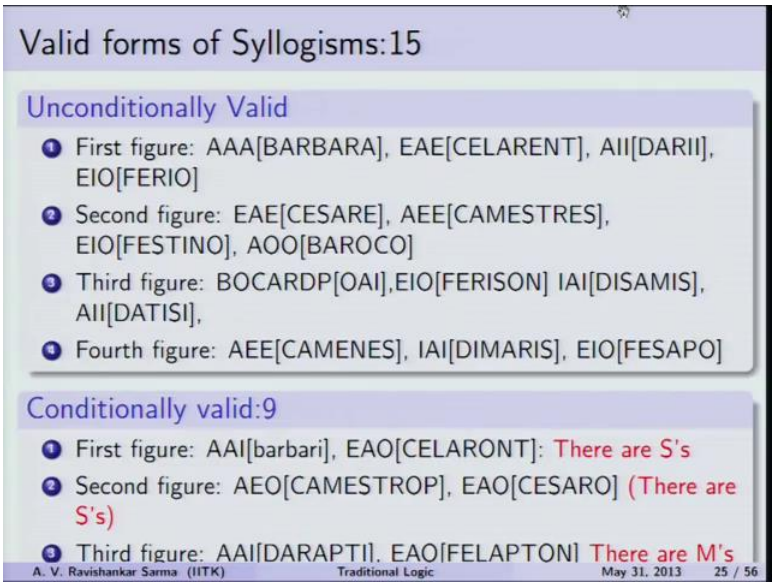

So, before that we are going to consider just for the think of thing. We will consider some example, and then you will see weather this particular kind of syllogism is valid are invalid, with the help of this particular kind of t.

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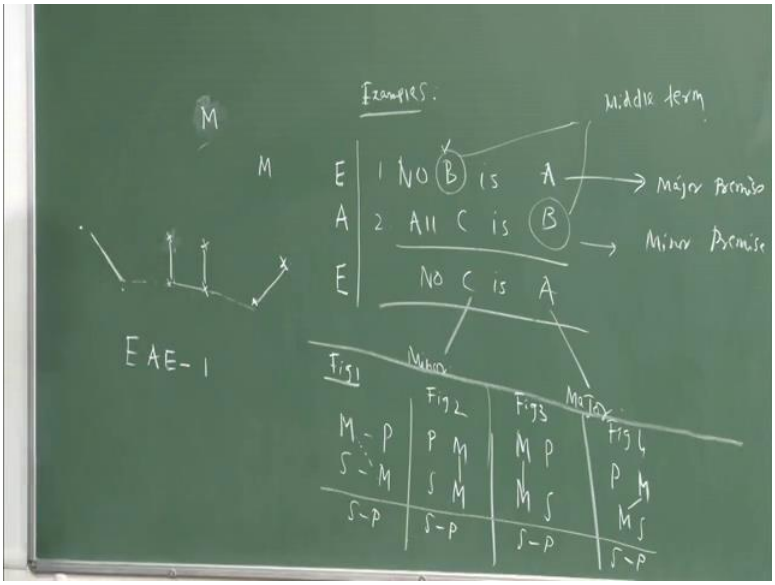

For example, if you have an argument like this thing NO B is a some example, trying to NO B is first 1 and the second 1 is let us see all C is B and then this is the third categorical preposition. So, that is NO C is A suppose, if you are given this particular kind of syllogism how you know that this is valid or in valid. So, now the first thing which you need to know the identify the terms in this particular kind of syllogisms. So, first come to the conclusion.

So, that is the subject term of a conclusion this is a conclusion the subject term is called as a minor term and the predicator term, we will conclusion is a major term and then whatever tries in the premises that is B. So, this is what we call as middle term; this is the first 1 we need to identify. So, whenever, we found to minor term in premises that is called as a minor premise wherever, you will see this major term the major term is A. So, wherever you will see this major term that is called as a major term.

So, now, wherever find the term this is called as major premise, because you will find major term A and now, this is called as minor premises. So, this is conventional that in the standard forms you always take the major premise first for example, in next categorical preposition this comes first. So, it changes it to in this particular kind of thing based on the minor middle major terms of your conclusion. So, this is in a standard

format only and this. So, now, the second 1; which need to note is this particular kind of think. So, based on how the middle term is distributed.

So, we have this particular kind of thing. So, what we have said was in the first figure 1. So, the middle term is like this middle term occupy subject here and up course, it is predicate the subject in all mp as m and this is P M S 2 like this occupied the position of a all in second 1 is M third 1 is M P M S; it occupies the position of a object and this is figure 3 and figure 4 figure 4 middle term is like this P M and M S. So, there are some waste remember it in all. So, this diagram goes to like this is where you have middle terms are there first 1 and then middle term is here and then followed by that again there is something.

So, these 2 and then up course the middle term occupies particular kind of positions. So, this is what is considered to be the thing which you take into consideration. So, this is a diagram and this is goes like this and then have middle term here and taken this and then followed by that we have another diagram here. So, with the help of diagram if you also understand where the middle term is distributed. So, this goes like this the diagram goes MM and then this is M and this is M this is what we have to done 2 lines a first of all and then after that this goes like this forget about this particular kind of diagram.

Now, we need to find out what kind of mood, in this particular thing as. So, now we have to identify the middle term first middle term occupies this position and this 1. So, now this is what is called as become middle term is like this M and this is also M yeah so; that means, it falls under a the figure, because the middle term occupies this position here and this 1 and in up course, in all these cases the conclusion is always A and P subject because in sentence have; obviously, in the subject and predicate. So, this 1.

So, this is A what is the preposition here this is first of all in E preposition NO A NO B is no cats and dog like that in this is AEA preposition and again this is AE preposition. So, now, the mood of this thing is EAE and then; we need to state whether it falls under figure 1 are figure 2 are figure 3 or figure4. So, EAE since, the middle term occupies the subject position here. And here in the case here it is A predicate preposition. So, it looks like that this is the EAEE 1.

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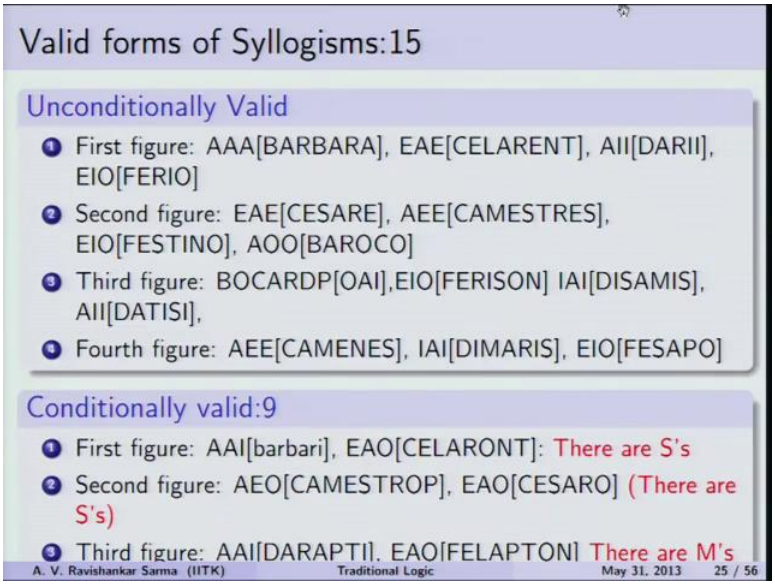

So, now, you will see here EAE 1 for example, in the first figure AAA EAE 1 that is; obviously, the valid kind of argument this is all is called as.

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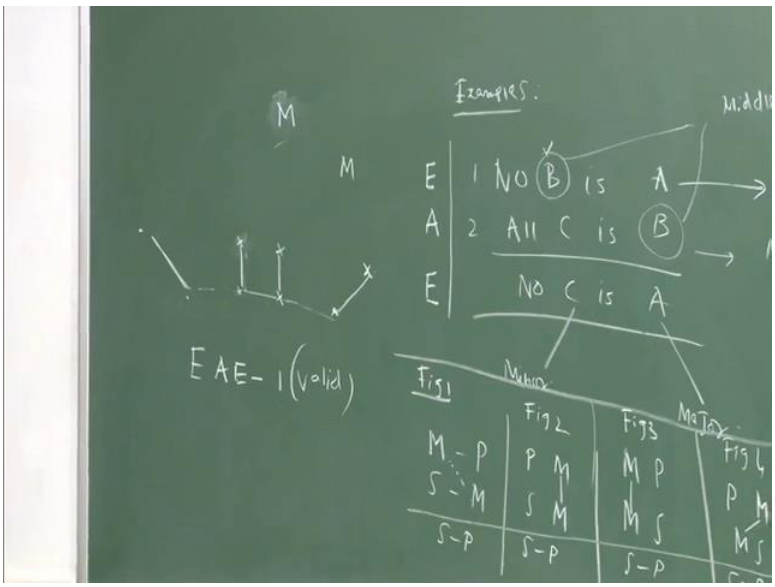

So, as you clear is that EAE 1 is a valid kind of argument for example, if you change this thing into. So, that is why this is called as valid according to Aristotle, but we did not

come to know how it is valid in A for that; we need to say it rules little bit later, we will state this rule and all in a minute from now. So, this EAE 1 will tell us the entire thing about this particular kind of syllogism. So, EAE is A mode and it falls under figure number 1 as you are seen in the think Aristatal makes this thing as a valid kind of syllogism for example, the sake of argument we have to try to change this particular kind of things the words here.

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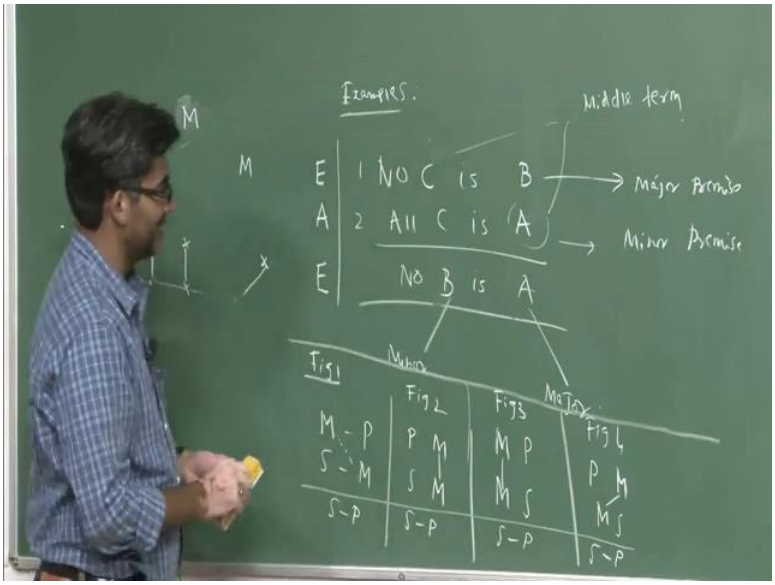

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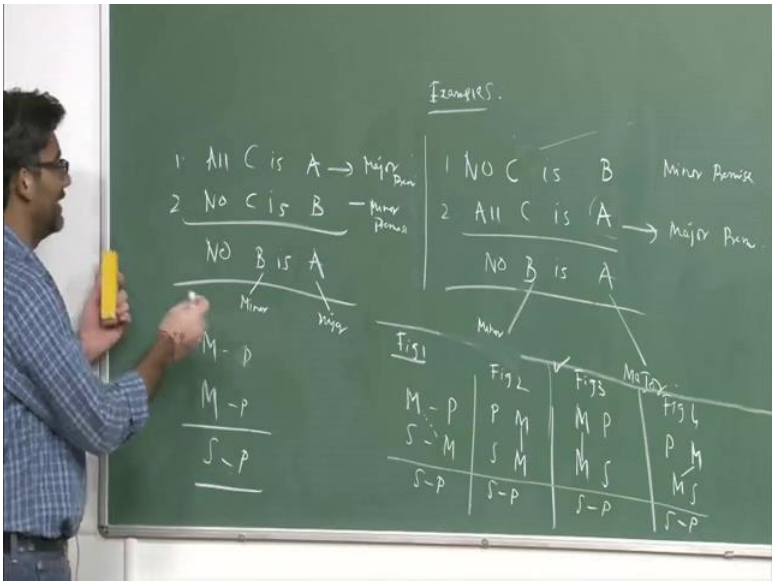

This if keep like only instead of these C and B and A for randomly you take into consideration this 1 and up course, the C should not come here middle term does not come in the conclusion this is 1; which you have know. So, now we need to find out what is the major premise and what is the minor premise extra up course, in this case A is A major term and B is A minor term. So, whenever you have this minor term that is consider to be a minor premise whenever, you have this major term in the premises that preposition is called as a major premise is called as a major premise.

So, accrues here. So, this is A major premise and then minor premise where ever it accrues is usually called as a minor premise. So, usually or conventionally, this is that you stayed the major premise first and the minor premise late. So, now this is all C is A this is the first 1 we is to change it and second 1 is NO C is B and up course, conclusion is C that is NO B is A for this B is A can be anything cats anything you. So, should it you will come to know it is valid or in valid kind of argument, when you have 2 premises in a conclusion; obviously, it as an invalid kind of argument we are trying to see weather which figure it falls.

So, now we have this particular kind of standard kind of format. So, now we need to observe the middle term middle term is occupying the subject position here and then up

course weather, predicate or not does not matter and subject predicate is also this going to be the conclusion end. Now, we this can be a subject of M and P predicate them; in all it does not matter much above, we are interested in how the middle term is distributed and now middle term is occupying the subject position in both the premises in all. So, this is not the 1 which are looking for and this is not because, it occupied the predict 1 and 1 which are looking for is because, this since to be closer to this particular kind of thing.

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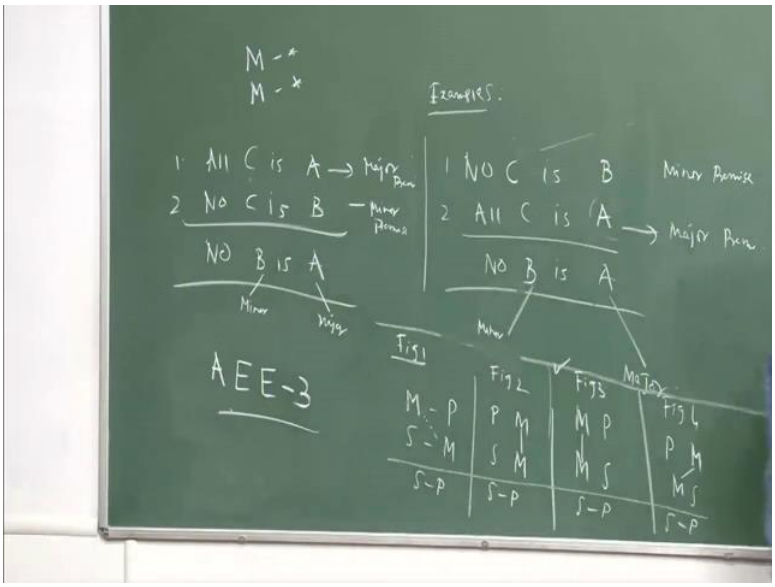

So, now, up course this is a minor term and this is a major term and up course. Now, you have written order major premises and major premises and then up course, now need to find out the mood of this particular kind of thing. So, now the first 1 is a preposition all C are A etcetera and the second 1 is NO C is B that is AAE preposition. These 2 are serving as A premises towards and the third 1 is; obviously, the conclusion that is also E now, the middle term is distributed like this and something else here; so other term.

So, this is closer to this particular kind of thing M and P S. So, now this is figure for 3. So, now Aristotle says that: now we look for whether AEE is going to be valid are not in the third figure.

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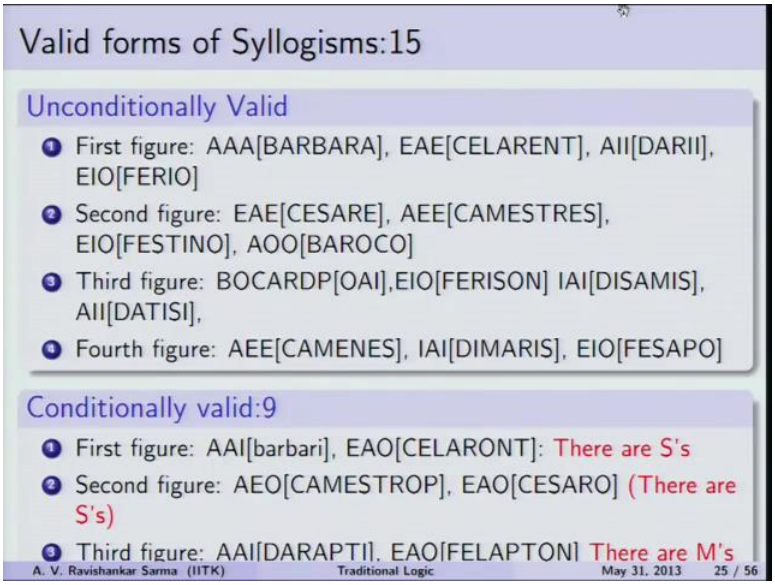

Now, we will see in third figure only OAI EIO IAIAI these are going to be valid kind of forms. You do not find AEE correspond in to figure 3, which is going to be valid up course AEE is valid in the fourth figure, but we are not getting the particular kind of thing the other 1; which you have this AEE corresponding to the third figure based on how the middle term is distributed. So, you will not find AEE here. So, that way it is an invalid kind of argument may be you can look for the conditional validity; we need to see whether the third figure third figure, you will not find this particular kind of thing EEE kind of thing we find only AEE EAO extra; they are consider condition.

This is not even conditionally also valid I did not talk any condition about validity talk about it little bit later; when I talk about existentially important in a simple movement conditional validity means; it suppose a that for example, first case in 1 figure AAI and EAO, there consider to be conditionally valid in sense that the subject term is non empty. So, there means; there are some kind of subject term, which are actually existing in the word. So, in the same way find the second figure AEO AO are consider to be again conditionally valid again whether or not the subject term actually exist; that means, weather are not is empty or non empty you can judge whether; they are going to be conditionally valid or not.

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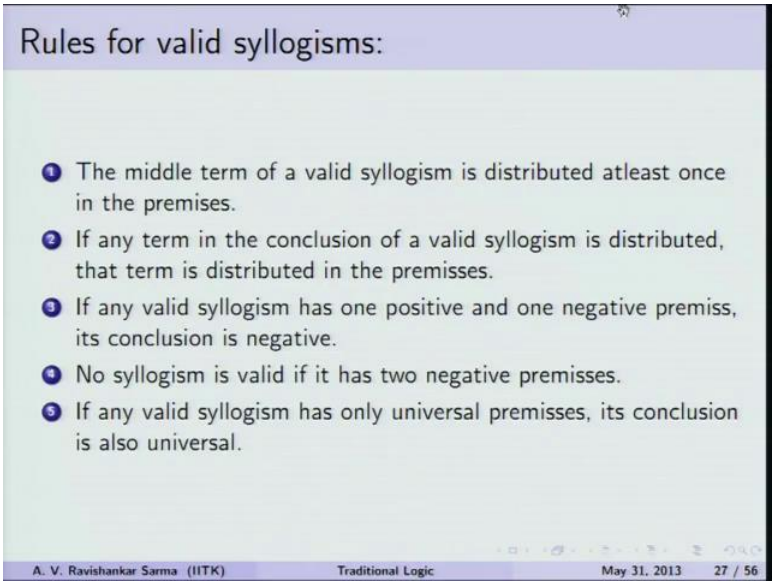

So, now how do we know that these particular kind of categorical syllogism are valid and some particular kind of categorical syllogism are in valid.

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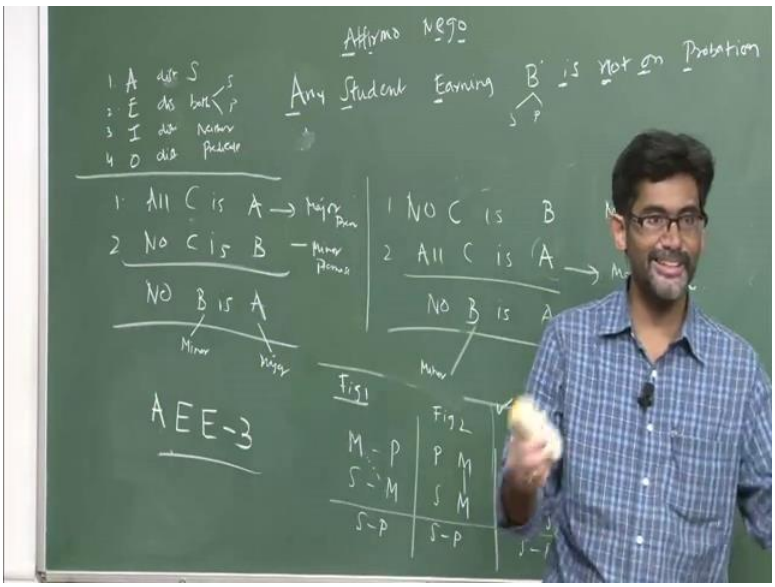

So, Aristotle is come of the 5 interesting rules, with you can judge whether or not the given categorical syllogism is valid or invalid. For all these things what is important here

is to identify this terms in the syllogism. First is a middle term up course, major term and minor term. So, this are the thing which you need to identify and then you should ensure that the middle term is not occur in the conclusion it occurs only in the premises it occurs twice in the premises. So, the first rule is that the middle term of valid syllogisms is distributed at least once in the premises.

So, for distribution we are come off with 1 particular kind of numeric. So, that is like any student earning I am writing to in capital letter identify this particular kind of earning BB grade example B is not on probations. So, before that we have another mnemonic all these things are very important then; you will use this; that means, universal proposition like A and I are reformative and negative prepositions are E and O; they are consider to be negative kind of prepositions.

So, this is the 1 which are going to be very important in all, with this you can come to know what preposition distributing what. So, A preposition now, we will write it here A preposition distributes subject and whereas; that means, A distributes S and now E preposition distributes both subject and predicate. This is the way of remembering it in all there is no standard rational kind of judgment you know just for the take of remembering; this we are using this particular kind of mnemonics.

So, E preposition distributes both subject and predicate and then I preposition distributes neither I preposition is some m are motor some x are y some cats are animals extra I preposition distributes neither; that means, neither subjects nor predicate and then O preposition in this case distributes on the predicate P stands for predicate and O stands for O preposition is to be used predicate. So, now you need to note that this whether or not this particular kind of distribution is satisfactory or not. This is very difficult question to answer; there are some prepositions categorical prepositions, in which for example, it is a universal affirmative preposition a preposition all batulars are unmarried people and all.

For example, if you say that thing it appears to be the case that off course it is an a preposition it will distribute subject only because unmarried people are referring to the whole of it is talking something about whole class of baturals and all. So, it means S is

distributed no doubt about it. But unmarried people are nothing, but baturals only baturals also seems to be the distributed to the whole of unmarried kind of people and all. So, it appears to is that here both subject and predicate is distributed and all.

So, this is what is going to said some kind of limits to Aristotle theory of distribution and all distribution of terms. There are some cases, in which yeah although; it is an preposition, but it distributes both predicate subject and all. So, that is not what, we are going to look for, but in the most of the cases what happens is A preposition distributes S and E preposition distribute both subject and predicate I preposition distribute neither of them whereas, O preposition distributes predicate that is what is standard theory of Aristotle theory syllogisms. So, now we apply this 5 different kind of rules to these 2 syllogisms and we will see what syllogism is valid and what is invalid now.

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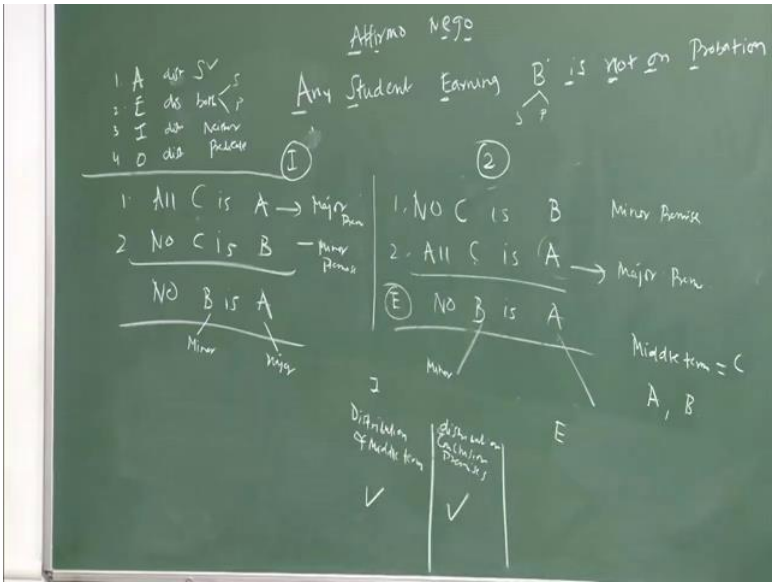

So, now, the first role is this particular kind of distribution of middle term. So, this is the first rule. So, now we look for this particular kinds of rules and all. There are 5 rules which Aristotle could come up with and there is on the you can judge whether, given syllogisms is valid or not. So, now we are applying on these 2 syllogisms. This is 1 and this is 2; which we discussed it already, but we are applying these rules here. So, now coming back to this particular kind of thing. So, now here the middle term first you need

to identify these things middle term middle term is what C and then.

So, the other terms are like this. So, we have other terms A and B; which you forget about it you know whether, it occupies subject position or predicate position based on we have other terms and all first you have identified the middle term and all. So, this rule says that the middle term should be distributed at least once in the premises because middle term does not occur in the conclusion; so no question of distribution, in the conclusion. So, the middle term should be distributed at least once in the premises. So, now, what is this preposition this is an E preposition.

So, now E preposition distributes both subject and predicate and all; that means, the middle term is distributed here. So, now that means, we have satisfied this particular kind of criteria that A middle term should be distributed at least once in the premises and all. So, it is already satisfied and all off course you can look for other thing and all. All C is are A; that means, here C is the middle term and all. Now, if it is a subject a preposition A preposition distributes only S; that means, what is the subject term C is a subject term.

So, that so C is said to be distributed here since, it is A preposition A term A set to be distributed; if it is talking about something which is referent to the whole of that particular kind of glass and all; which the term is differing to. So, C is differing to and A is distributed to the whole of C and all. So, that is why C is said to be distributed and all. Suppose, if it is partially distributed etcetera and all. Then that is said to be non distribution and all. So, this is the 1 which we have explained in the last lecture. So, now the first role seems to be satisfied, because middle term distributed at least once in the premises and all.

So, it is distributed here and here also. So, now the second rule is says that no term is distributed in the conclusion; which is not distributed in the premises and all. So, now here A B is the term and then A is the term, which you are seen it in the conclusion. So, term is distributed in the conclusion; which is not distributed in the premises and all. If distributed in the conclusion, it has to be distributed in the premises as well. So, now this is AE preposition; that means, both term both subject and predicate terms are distributed and all; that means, B is distributed and A is also distributed.

So, now that means, in the premises at least these 2 terms i mean at least 1 of these things should be distributed at least once and all. So, now, here in this case once second, so in this particular kind of thing. So, NO C is B again it is an E preposition, it distributes both of them so; that means, B is also distributed. So, con distribution conclusion and premises. So, it your term is distributed in the conclusion, it has to be distributed in the premises also at least once and all. So, that means, B is here anymore distributed and all. So, this rule is also satisfied and all and there are some other kinds of rules which we need to look for.

So, that is if any valid syllogisms has 1 positive and 1 negative premises then; it is completion is negative and all. So, here at least 1 negative preposition is there here. So, this is because A and I prepositions are affirmative and E and P and O are negative prepositions. So, you find 1 negative preposition here; that means, your conclusion also should be negative and all. In the same way vice versa also same thing; suppose, if you find a negative kind of conclusion here then you should have at least 1 negative kind of prepositions in the categorical.