Introduction to Logic
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Lecture - 02
Non Arguments

Lecture of an argument, basically we said that argument consist of a premise and a conclusion. And the premise will provide sufficient evidence to believe, the conclusion to be true. So, then we also said how to identify an argument in a given English language passage. So, one thing, which we pointed out, is this that in an argument, suppose if there are some indicator words for the premises and there are indicators for the conclusions. Then, we can say that, we can identify premises and conclusion. It is task of a logician to premises conclusion, and then that constitutes an argument.

So, it is task of a logician to find out the arguments in a given passage. So, usually, any English language passage, suppose you are reading a newspaper or if you are reading any scientific test or anything. So, usually, it is clouded with, may be sometimes arguments, sometimes non arguments, etcetera and all. It is clouded with lots of information. So, how to identify arguments in a given English language passage? That is what is going to be our task.

And then yesterday we said that, if you find some indicative words, such as because etcetera and all. So, all this phrases, pointing out to the presence of a premise, suppose you find a conclusion indicator such as thus, therefore, it entails that, etcetera. The list is not even all. Yesterday, we talked about somewhat bigger kind of list and all. So, if you find these indicative words, then we are saying that there is a conclusion present in a passage.

So, it is the task of the logician, first to identify the conclusion, and then he has to ask himself, what this conclusion is supported by. So, now, today what we are going to do is this that, suppose if you do not find any indicative words for the premises, for the conclusion, then what one needs to do. So, how do we know that, a given passage consist of an argument. So, basically a passage consists of an argument. When, it proposes to do something. So, proving is not in the sense of the one, which we usually see in

mathematics, because it is very difficult to do the same thing in the case of ordinary day to day language. That is English language passage.

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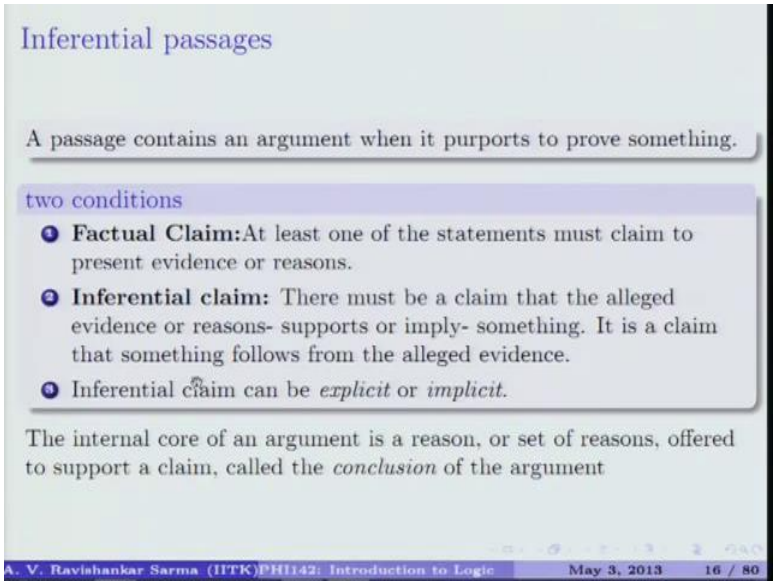

So, proving in a sense, that it has to satisfy two conditions. So, the first one is, it is well and good, if you have in a given passage the arguer is trying to make some kind of factual claim. So, what is factual claim? So, in factual claim, if there is at least one of the statements must claim to provide the evidence or reasons for the other. That means, in an argument, we have premises and a conclusion.

So, these premises are one of the premises, provide at least some claim, we make some claims to provide evidence or reasons. Then, we have said to have provided, factual claims. So, what I am trying to say simply is this that, in a given argument, the arguer has to make some kind of factual claim. So, if it is there, it is well and good and all, not all the times, it is possible and all, because it is not the task of a logician to come up with factual claims.

It is not the task of the logician to verify each and every fact etcetera and all. But, one of the most important conditions, which is the most important conditions for judging a given English language passage consist of an argument is the inferential claim. So, what is the inferential claim? So, it is like this. So, again, there must be a claim that, the alleged evidence or reasons.

Alleged evidence in the sense that you are providing some kind of strong kind of positive kind of reasons in support or imply something. That something is called as a another statement, which means, you are usually calling it as conclusion. So, in a nutshell, it is a claim that, something follows from the alleged evidence that you have provided in the form of premises.

So, the premises provide sufficient evidence, they believe the conclusion to be true then. There seems to be some kind of inferential claim, present in the argument and all. So, what essentially an arguer should look? What essentially, we need to look for is this that, there should be some kind of inferential claim, present in the argument and all, if not the factual claim.

So, inferential claim is what is considered to be most important part. So, this inferential claim may be either explicit, explicit in the sense that, now you will come to know it by means of indicative words and all. For example, if you find some kind of premise indicators because, so henceforth and all these things or may be some kind of conclusion words, conclusion phrases, such as therefore, thus, etcetera.

Then, we can say that, the inferential claim is explicit. So, all the time, we may not find explicit inferential claims and all, because in most of the English language passage, these conclusion and premise indicator words and phrases, may be missing totally. So, in that sense, we call such kind of claim as inferential claim or implicit inferential claim.

So, the internal core of an argument in a nutshell is a reason or providing some kind set of reasons, offered to support some kind of claim. That claim is usually called as conclusion of an argument. So, we need to have some kind of reasons in support of some kind of other claim, which we are calling it as a conclusion.

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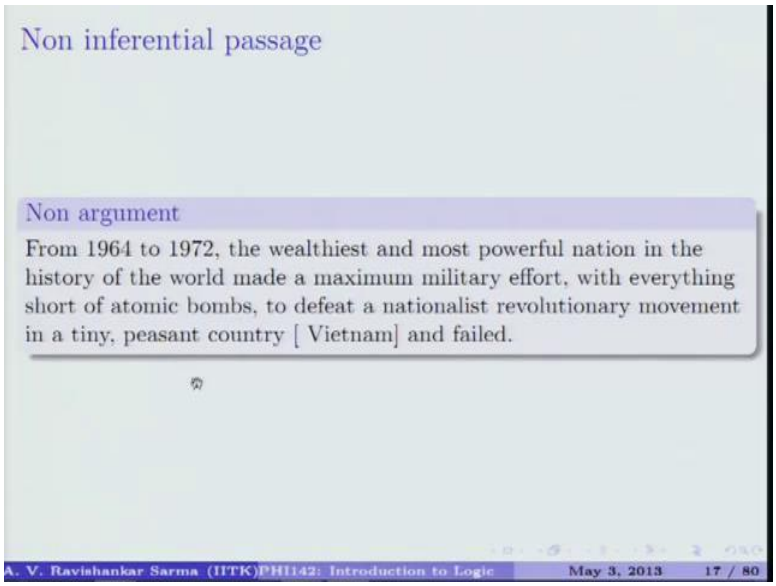

So, now, we have said, what is an inferential claim, at least it should have factual claims or inferential claims, present in an argument and all. So, what are then non inferential passages, suppose if you are reading a text, whether an English text or you are reading a newspaper or reading some other kind of scientific text, etcetera. So, how to identify that a given passage is an inferential passage? And hence, it is an argument or it is a non inferential passage and hence it is a non argument and all.

So, there is no formal kind of criteria involved in this particular kind of thing in judging that, this is an inferential passage; that is a non inferential passage, etcetera and all. But, in general, what we look for is this that, at least one of the premises, one of the statements, seems to be providing some kind of support for another kind of statement. That other kind of statement is, we are calling it as a conclusion.

So, here is an example of non argument and why, it is non-argument? It is because of this that, it is non inferential passage and all. So, in this passage, we are not providing any reasons for support of some other kind of statement, etcetera. The inferential claim is missing in this particular kind of passage. So, let us read out the passage.

From 1964 to 1972, the wealthiest and the most powerful nation in the history of the world, United States of America, made a maximum military effort. With everything short of atomic bombs, to defeat a nationalist revolutionary movement in a tiny peasant country, like Vietnam, but it failed. So, this passage is talking about, some kind of, it is

reporting some kind of incident in the past historical kind of thing, which we are trying to provide.

So, here, why got failed and all, we are not providing any reasons. So, that is why; the inferential claim is missing in this particular kind of thing. So, an argument is a one, which proposes to prove something, it establishes something based on some kind of reasons. So, that is totally missing here. So, that is why; it is called as a non inferential passage. So, here is an example of an argument.

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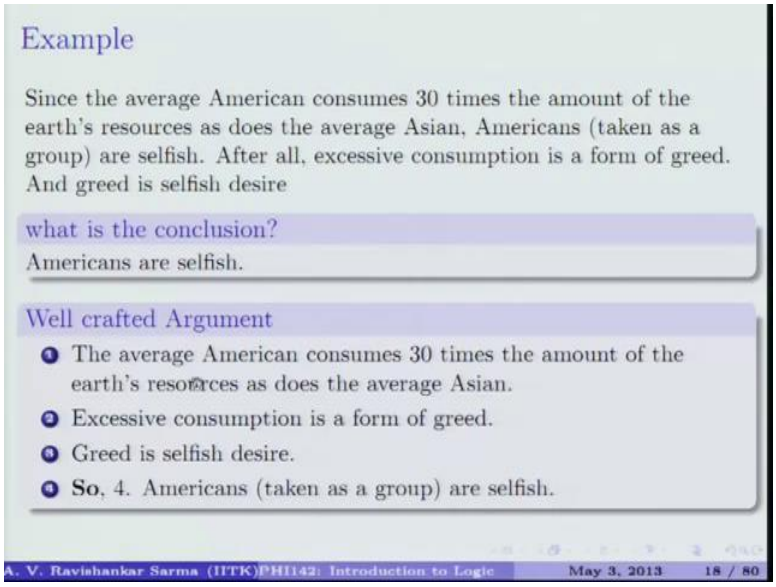

So, as you see here clearly, let me read out these things. Since, the average Americans consumes, 30 times the amount of the earth's resources as does the average Asians. Americans are selfish, after all excessive consumption is a form of greed and greed is selfish desire. Suppose, if you observe this paragraph or passage, it looks that, there are some kind of premise indicator words are there.

So, the first one, you will find it in the beginning of the passage, that it is since, anything which follows after since, will serve as premise. That is the average American consumes 30 times the amount of the earth's resources as does the average Asian. It looks like that Americans are selfish, seems to be the conclusion in the paragraph. As well, we talk about, why it can be treated as conclusion. What first thing needs to do is that, what is a single issue at hand and all in this particular kind of passage.

So, what is central issue of this passage? So, the passage is talking about why, the Americans are selfish and all. It is reasons are provided and all and the first one is, providing reasons to support this particular kind of claim. A claim is this that, Americans are selfish. And it is further supported by other thing, the thing which follows after all. That is the excessive consumption is the form of the greed and again, the greed is this kind of selfish desire and all. Each statement is supporting the other one.

So, what is the conclusion of this passage is the Americans are selfish and all. You have to note that, there is no explicit inferential claim, present in the passage. In a sense that, there are no explicit indicator words for the conclusion, therefore, thus, it entails that, it implies that, etcetera. All this things, you may not find in it in this particular passage. But, still we can make out that, using some kind of little bit of exercise.

Then, we can find out that, Americans are selfish, seems to be the conclusion, which seems to be supported by the other statements and all. So, now, there are many arguments, which will come across in day to day course and even in the English language text. They are not well crafted and all. So, what one has to do is this that, without disturbing much of the content of the thing and all. We need to rearrange the English passage.

So, that, things will become little clear. This argument can be put in a better way, like the following. A better well crafted argument, without disturbing the content of the given passage is like this. We are listing it out with 1, 2, 3, 4, etcetera. So, the average Americans consumes 30 times amount of earth's resources as does average Asians. That seems to be premise number 1.

And then excessive consumption is a form of the greed. So, there is another statement, which also serves as the premise, because provides reasons to believe some other kind of claim. So, now, greed is a kind of selfish desire. So, this seems to be supporting the earlier statements; that excessive consumption is a form of greed and all. So, that means, we are inserting some kind of conclusion indicator words to make this implicitly inferential kind of passage to explicitly inferential kind of passage.

So, what is that, we are trying to do; we are just inserting one kind of phrase. That is, so which is conclusion indicator, just to indicate that anything which follows this is a conclusion. Americans taken as a group, as a class or considered to be selfish based on

the following reasons that you have provided in 1, 2, 3. So, implicit inferential passage can become an explicit inferential passage by inserting some kind of conclusion indicator words and all.

So, now, so far we have seen that, how to identify an argument, you identify an argument, when you have a premise and conclusion. And once, you identify the premise and conclusion with some indicator. Then, you say that, some argument is giving English language passage. Suppose, if you do not have premise indicator or conclusion indicators.

Then, what you need to look for is either a factual claim, if it is there, it is well and good. And if it is not there, at least, you should look for some kind of inferential claim. At least one statement has to provide some kind of reasons to believe the other conclusion, other statement, which usually, we call it as conclusion. So, now, in general, what should be out strategy, it is not only one strategy, which we have. But, in general, it works on most of the cases.

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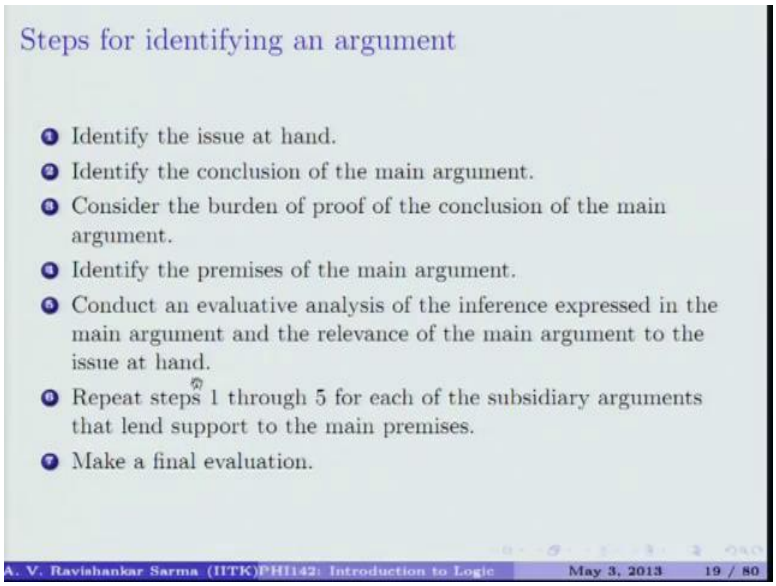

So, how to identify an argument in an English language passage? So, first and foremost thing, which we need to do, is to identify an issue at hand. What is the central issue that the passage is trying to indicate to us? So, that, we need to find out, that central issue surrounding, which you will have some kind of conclusion. That is a reason, were trying to find out the central issue at hand.

So, now, based on central issue at hand, you will identify the conclusion of the main argument. So, now, consider the burden of the proof of the conclusion, because the conclusion is not yet proved and all. So, there is burden of proof and all, burden of proof tells that, you are claiming something. But, it is not supported by some of the other kind of statements. So, there is still some kind of burden proof and all, for the conclusion.

So, first, you identify the conclusion. Then, you will find out, how it is supported by the other statement, which are called as premise and all. So, now, we need to identify the premises of the main argument. Once you identify the conclusion, the central issue, which is surrounding the central issue at hand are the central message something like that, the passage is trying to refer to us.

From that, you will identify a conclusion, and then you will identify the premise of main argument. And then you conduct an evaluative analysis of the inference experienced in the main argument. And the relevance, you talked about the relevance to the main argument to the issue at hand. Conducting evaluative analysis of the inference, means that, the whether these premises are able to support, adequately supporting the conclusion or not is the one, which we rigorously look into.

So,, then after following this 1 to 5 steps, again you repeat steps from 1 through 5. One, which I have listed above for each of the subsidiary arguments, that lends support to the main premises and all. And ultimately, you make some kind of final evaluation. With the final evaluation, you can make out that, here is a conclusion and here are the premises and all.

The central issue of an argument is what is important, which serves us some, which gives us some indication that, there is conclusion present in the argument. And after finding out the conclusion, you will find out, what supports this particular kind of conclusion. Is there any statement, which seems to be supporting this kind of conclusion? That is the one, which you need to see. If there is no adequate support an all, then there is no such kind of inferential claim and this can be treated as non inferential passage.

So, this is the one, which we have asked earlier also. So, in general, we are saying that, there is a premise indicator. Then, you say that, the premise is present in given English language passage. If the conclusion indicated thus, therefore, entails that, etcetera. Then, we say some kind of conclusion is present in given passage. So, there are some questions

that we need to ask ourselves. Again, there is no formal kind of criteria for judging that, if you follow these steps and all, you will come up with a conclusion and all.

In general, these are some of the steps that one follows in all. After all, why we are doing these things, because after all, we are trying to for an arguer, what is important is the argument. So, once, you have argument and you can criticize, you can say that, the argument is valid or I can say that, argument is invalid or strong, weak, all these things for else. Once you identify an argument or once you identify an argument, what type of argument it is etcetera. All this questions follow and answers to the questions follow, after only when you identify, whether there is argument present in an English language passage.

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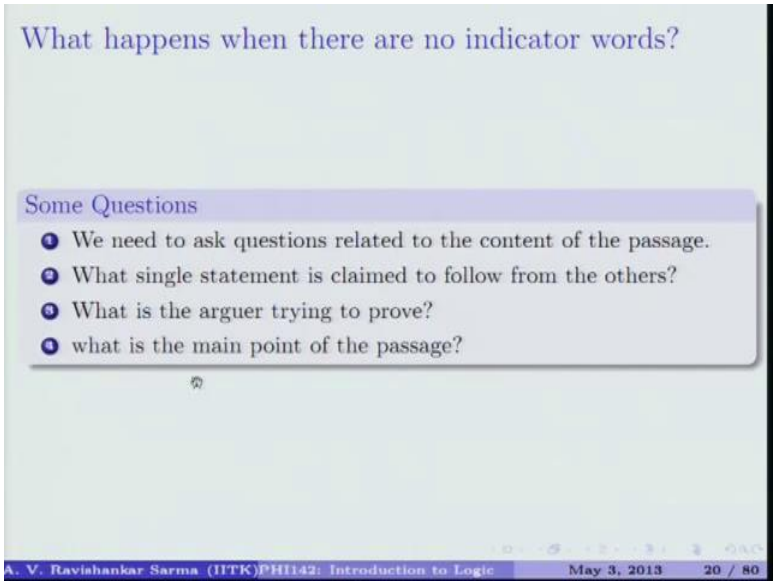

Some questions one need to ask, these questions are like this. We need to ask the question related to the content of the passage. When, the content of the passage is, you seems to be finding, some kind of financial claim. Then, it is judged as inferential passage and hence, it is an argument. If it is non inferential passage, then it is non inferential passage, non argument.

So, as we have already said, the single statement; that claim to follow from others will serve as a conclusion or if you ask yourself, what is an arguer trying to prove? Then, that will serve as a conclusion or if you ask yourselves, what is the main point of passage? That is, when the main kind of passage will consist of some kind of conclusion. This is

some kind of strategies are some questions, that we ask to come up with, what is a conclusion in a given passage.

Once you find a conclusion in a given passage, then the things will become easy in a sense that. Then you will talk about the other statements seems to be supporting this particular kind of, the main point kind of passage. So, the inferential two main conditions, we have explained earlier. One is the factual claim; at least one of the statements must provide an evidence.

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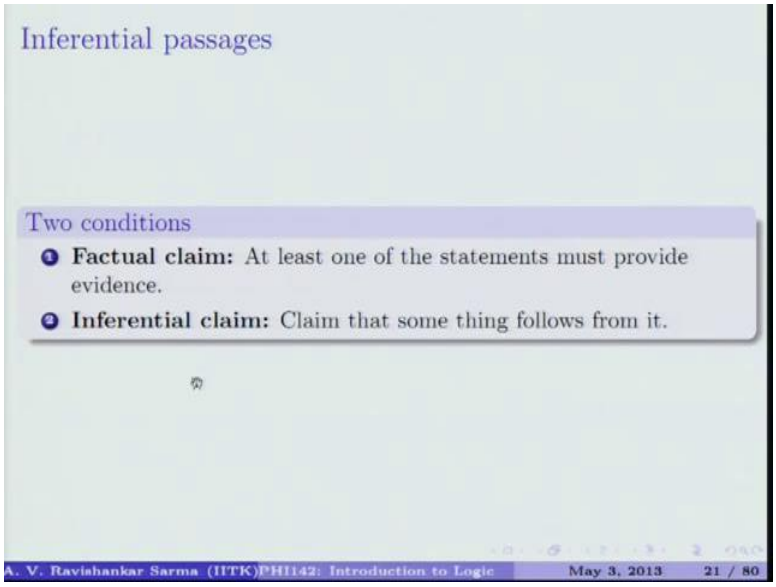

And an inferential claim, it is claim that some things follow from others. So, at least one should ensure that, he needs to have some kind of inferential claim. After all we need not to verify each and every fact and all. But, still claims that something follows from this particular kind of thing. It is not the task of logician to verify the facts and all. It is job of some other, like scientist etcetera, to find out, whether these facts are correct or not based on experimentation, repeated observation etcetera.

Logician task is to take out any two statements and all and see, whether these two combine together, leading to another statement. Whether, these two statements are adequately supporting, the other statement or not which usually serves a conclusion. So, now, so far, we talked about argument, which consist of premises and conclusion. And then we talked about an argument in a sense that, it is inferential passage, consist of an argument. Non inferential passage, consist of non arguments.

So, what are these non inferential passages? Non inferential passages are those passages in which the inferential claim. That we talked about, which claim factual claim and inferential claim is totally missing in those kinds of passages and all. So, often, we confuse these particular kinds of non inferential passages as inferential. And then logicians will have some problem and all, in mistakenly understanding argument as non argument.

So, non inferential passages are those, they do not claim prove or justify; that something is the case and all. Suppose, you have a statement, which you suspecting that as a conclusion, but these premises etcetera and all, which you are seems to be providing some kind of support. They do not provide any kind of support to the conclusion. Inferential claim is missing, that is what I am trying to prove, that is what I am trying to say.

So, what is a non inferential passage? A statement of warning can come under the category of non inferential passage. We just giving some kind of warning and all and you are not trying to show, why it is the case, etcetera and all. Not proving anything, etcetera or if you are just giving some kind of peace of advice to your friend, something like that and that also serves as the non inferential passage.

The statement of believe, just a matter of believe or opinion, you will have 1000's of opinions, beliefs, etcetera. That may not serve as inferential passage, loosely associated kind of statements, reports; explanatory passage. And the last few things seem to be little bit as a debatable kind of issue, whether explanations come under the category of arguments or not.

Philosophers argue that, it does come under the category of arguments, which I will talk about little bit later. But, the book, which we are following, considers an introduction to logic by Patrick Harley. So, in that, explanation is treated as non inferential passages. So, there is a minute difference between explanations and arguments, which I will talk about it. When, we come to explain in this particular kind of things explanations. A single conditional statement will not serve as an argument.

So, we will see, why these things, does not come under inferential passages and hence, non arguments and all. And hence, we are not calling it is as an argument. So, what are warnings is there are all general things and all, which all of us, mostly we aware of

particular kind of things. So, I will quickly go through, some of the things non inferential passages, which we usually come across in day to day discuss.

And we should not, after identifying these things; we should not mistakenly take it as arguments and all. Why you should not take it as argument, because one of the important things for an agreement. That is the inferential claims, which is missing in these kinds of passages, etcetera.

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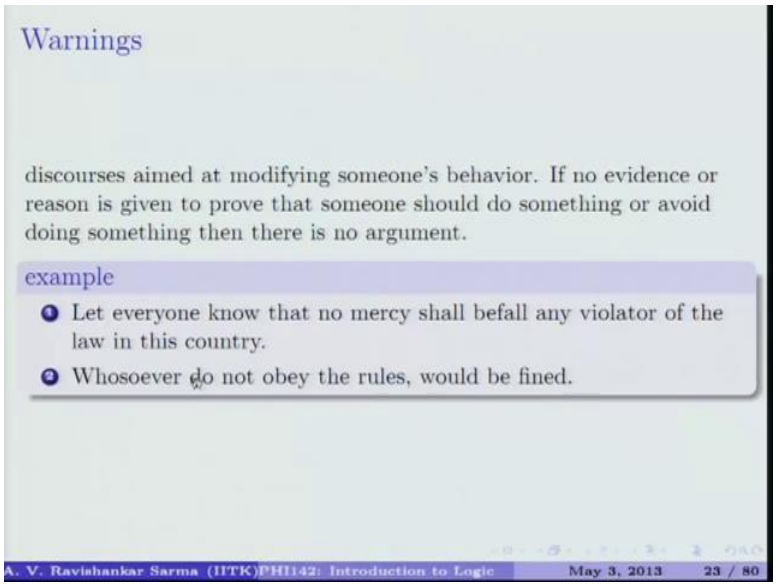

So, what are these warnings, which we come across in day to day life? These are the discourse aimed at modifying, some ones behaviour. You will be warning someone else, not to do certain kind of thing. So, if no evidence or reasons is given prove that something should do or avoid doing something. Obviously, there is no argument and all. Suppose, a teacher tells a student, do not copy in an exam, if you copy, you will get 0.

He is just warning and all and he is not giving any reasons for saying that, you should not copy, why you should not copy, why you should copy in the examination. So, here are some of the examples, we will talk about the second example. It is just talking about slight for warning and all. So, if you not obey the rules, you would be fined, if you do not slight follow the traffic rules, you would be fined etcetera.

So, these are the things, which are non inferential kind of passage. We are not claiming anything to be the conclusion. And then conclusion does not seem to be supported by

premises and all. These are non inferential passages. It is just a piece of warning. The first example, everyone knows that, no mercy shall befall of any violator of the law of this country. Anyone who violates the law will come to justice will subject to some kind of justice. So, all these things are bit of peace of warning, etcetera and all. This discourses same module some ones behaviour is not to prove anything. So, it is non inferential and hence, it is called as non argument.

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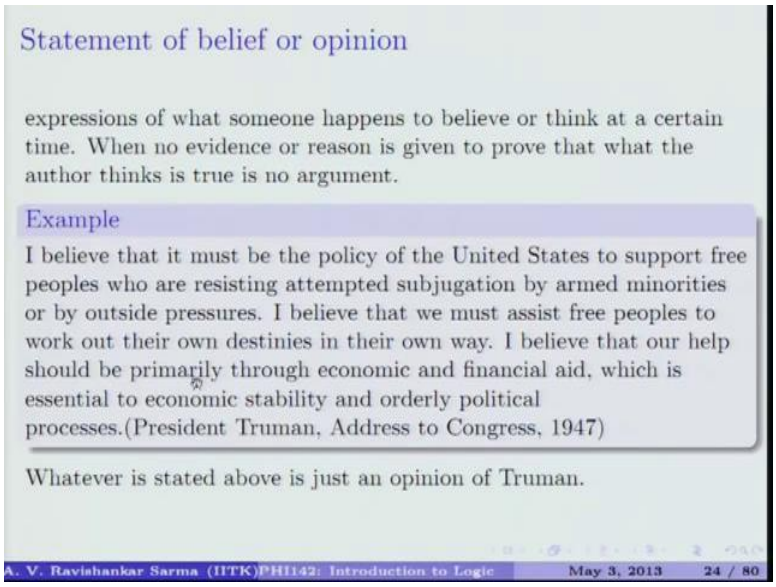

So, we will hold, so many beliefs, which we do not have reasons as, why we believe and all, I believe that god might exist, but it may not be true, all these things are common. We believe lots of things. So, statement of belief or an opinion is an expression of what someone happens to believe or think at certain time. When, no evidence or reasons is given to prove that, what the other things is true.

Then, it is not called as an argument and all. There is no present in this particular kind of passage. It is just a matter of opinion or belief. Expressing your opinion, but you are not trying to say, why, for example, if you say, I believe I god exist, etcetera and all. I am not trying to prove that, existence of god with some kind of statements, etcetera or I am not trying to show, why god does not exist, etcetera in this particular kind of thing.

Let us take an example, which serves as non inferential passage, which comes under category of statement of belief or opinion. See, here is an example, I believe that, the policy of United States to support free peoples, who are resisting attempted subjugation

by armed minorities or by outside pressures. And again, another statement, which is following after that, again saying, I believe, we must assist.

Free peoples to work out, their own destinies in their own way and again, he saying with another belief. I believe that, our help should be primarily through economic and financially, which is essential to economic stability and orderly political processes. So, this is mentioned by President Truman, address to 1947, congress. So, why I am talking about all these things, because of this that, series is a passage in which factual claim is missing, inferential claim is also missing.

It is just talking about some kind of statements, which the order is believe to be true. You might believe to be false also or you might be having some kind of authorities. So, the facts might be true and all, but it is only personal opinion or belief. That it is trying to express. It is not supported by any reasons or any particular kind of thing, which will serve as the premises.

And then it is not trying to claim, anything which the statement will serve as a conclusion. So, the inferential claim is missing factual or even inferential claim. So, that is why it will come under the category of non arguments.

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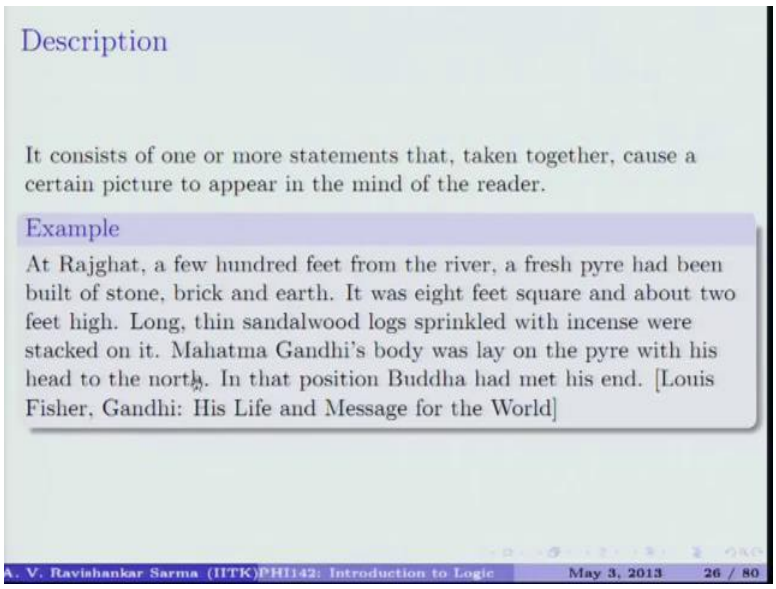

There are some kinds of descriptions, it consists of one or more statements taken together cause a certain picture to appear in the mind of the reader. So, you are just giving some

kind of description. So, for example, if you say at Rajghat a few 100 feet. So, what I am trying to talk about is suppose, if you have some report and all, in newspaper, then the reporting so much of information, and then it is just report and all. So, it will be like this.

So, it consists of one or more statements that taken together cause a general picture to appear in the mind of a reader. Some bomb blast took place somewhere else, etcetera and all. It is just giving kind of description of that particular kind of event, which occurred, at what time, when it happened, when it got blasted, all these things. The news channel list is trying to piece together all the information and putting it in one place.

So, this is some kind of report. Reports also come under the category of non arguments, because it again, it is non inferential passage and inferential claim factual claim is missing that particular kind of thing. See, there is an example, which says like this at Rajghat a few 100 feet from the river, a fresh pyre had been built of stone. Pyre is a kind of sand on which dead bodies are kept and burnt.

So, brick and earth, it was 8 feet square and about 2 feet high, it is giving some kind of description of that particular kind of thing, where a dead body was burnt. Long thin sandalwood logs sprinkled with incense, were stacked on it. Mahatma Gandhi's body was lay on the pyre with his head to the north in that position Buddha had met his end. All these things are some kind of description given by ambience colour may be message.

Louis Fisher is writing on Gandhi's and his life and message to the world and all, but what is described here and all. So, what I am trying to talk about is a report is come under the category of non arguments and all. It is just giving some kind of generally description of an event, which has taken place. So, this passage is talking about Mahatma Gandhi, how he was buried, burnt, his body was burnt, etcetera. So, it is just giving some kind of description and all these files information on together, just giving the description of this particular of thing, how his body was burnt and all.

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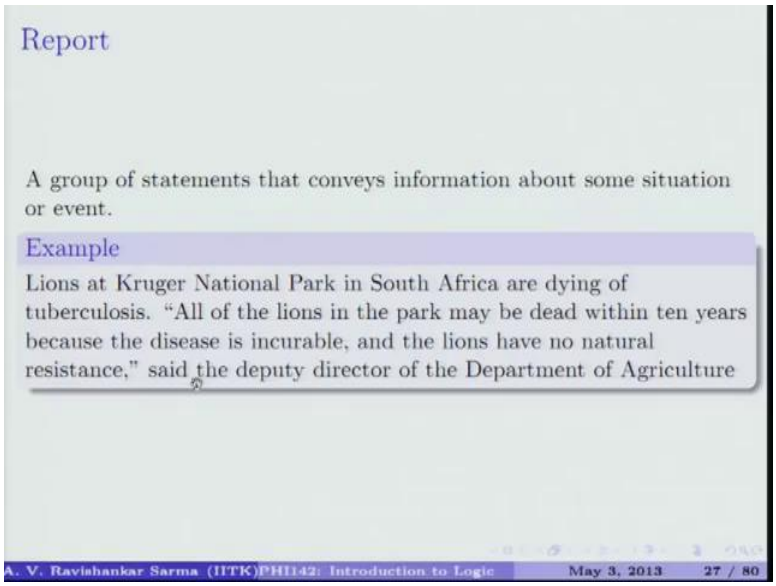

So, report is a group of statements that conveys information about some kind of situation or event. So, it is talking about some kind of situation or some kind of event, which in newspaper. You will find or someone, who is giving some kind of report on some kind of instance, which took place in past or some kind of funny event, which happened in day to day discourse. And putting it in face book, etcetera and all and these all come under the category of reporting.

So, here is an example, lions at Kruger national park in South Africa are dying of tuberculosis. All of the lions in the park may be dead within 10 years, because although, there the word because here. Still, it will not come under category of argument and all, why it is again, we will talk about later. Because, the disease is incurable and the lions have no natural resistance. Said, all these things are in the quotation mark. That is what is most important, which you need to note.

So, this is told by someone else, who has given this message, the deputy director of the department of agriculture etcetera. It is just reporting this particular kind of incident about lions. So, again, there is no inferential claim in this kind of passage. So, this comes under the category of non arguments. So, we will be asked to write a repository passages etcetera. Write an exposition on something, let us say, Raman Effect or something like that.

What are these expository passages and why, these passages are non inferential passages etcetera. Is the one, which we are going to talk about next?

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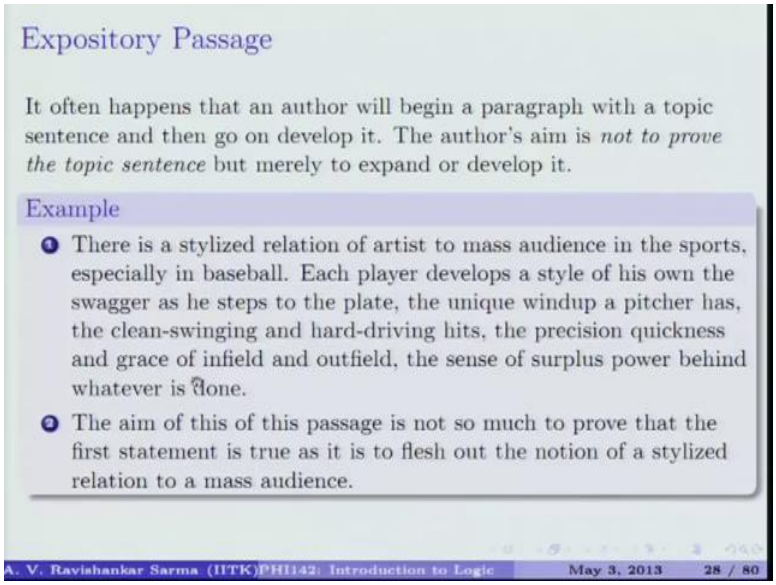

So, it often happens that, an author will begin with the paragraph, with the topic sentence. Where, it can be anything Green House effect or White something happens etcetera and all. Why sky is blue, etcetera. A paragraph with sentence, and then go on developing everything is centred around some kind of topic sentence. And it will not go beyond the boundaries of the particular kind of topics sentence.

The author saying is not to prove that particular kind of topic sentence, but nearly to expand and developing. So, this is the case, which happens, when students getting kind of PHD, PCS, etcetera. So, they will come up with some kind of thesis statement. So, the entire PHD, PCS of course, the entire thing which is centred around this particular kind of thesis statement.

So, here is topic statement, which consist or constitutes research problem, and then everything is centred around that particular kind of thesis statement. That is serves as a topic statement. So, researchers have to develop this particular kind of statement specially developing some kind of topics of thesis statement. So, they will be nearly expanding it and developing this particular kind of sentence.

Of course, in the PHD thesis, one does talk about ultimately it needs to define, what is trying to argue in this particular kind of thesis. But, initially what he needs to look for is this you have to identify a problem and come up with some kind of thesis statement and then everything will be centred around that particular kind of thesis statement. So, the focus is to maintain that particular kind of thing.

So, here are some of the examples, which are centred around, some particular kind of topics sentence. The example is like this, there is a stylized relation of artist to mass audience in the sports, especially in baseball, each player develops a style of his own. The swagger as he steps to the place, the unique windup a pitcher has the clean swinging and hard driving hits.

The precision quickness and grace of infield and outfield of surplus power behind, whatever is done. Forgot about, these are big words, which are explained in this particular kind of thing. But, the aim of the passage is not to prove that, the first statement is true. The first statement is, there is stylized relation to mass audience in the sports. Especially, it is talking about baseball. There is not much to prove that the first statement is true as it is flesh out the notion of a stylized relation to a mass audience.

So, the topic sentence of this passage is the first statement. So, there is a stylized relation of artist to mass audience in the sports, especially in baseball. It is talking about one particular kind of topic sentence. It is talking about entire thing about centred around that particular first sentence. So, there is not time to prove, why prove with any claim that there is a stylized relation of artist to mass audience in the sports statement.

So, that inferential claim is again missing and hence, it is called as a non argument. But, again you should note that, there is no such kind of formal criteria. If you judge that, given passage is non inferential or inferential, etcetera and all. This is in general; we identify these things in this following way. So, that is a reason, why first part of this course is critical thinking, which come under the category of little bit of informal logic and all.

But, in basic concepts, we need to cover these particular kinds of things. After all the study of logic is, one of the central aims of logic is to identify the distinction between good argument and bad argument.

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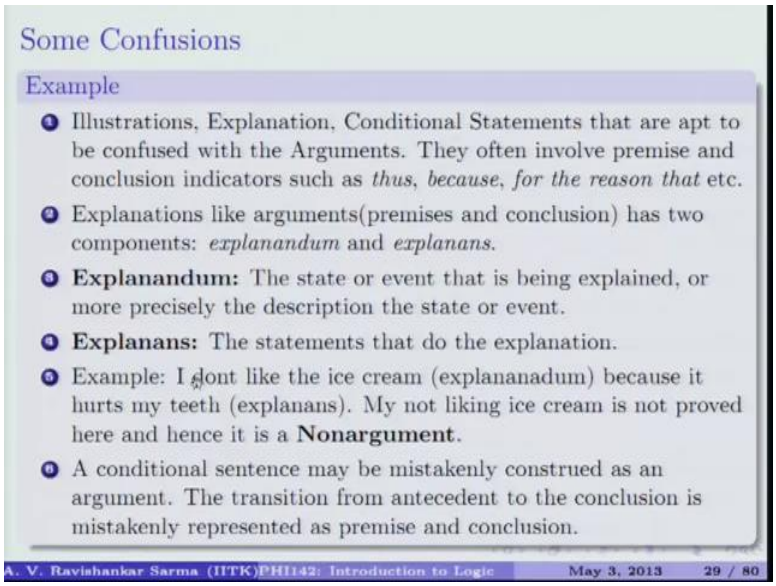

And then find out, whether argument is present in given passage, etcetera and all. So, once you identify an argument, then we can talk about criticizing the particular kind of argument.

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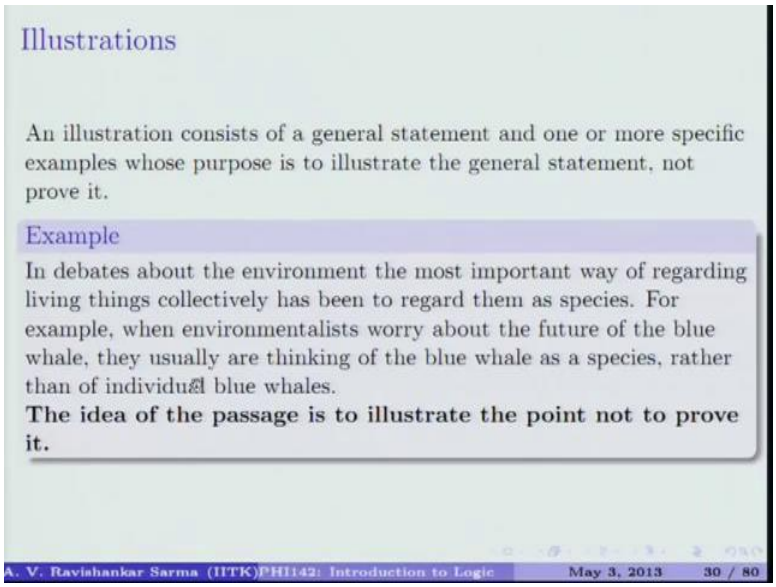

So, these confusion, we talk about later and there are some other kinds of things, which come under the category non arguments. There illustrations, all the time, suppose your friend asks you, suppose you are given abstract idea to your friend and all. So, immediately, will ask you given example or instance, give me example. So, these kinds

of illustrations consist of some kind of general statements and one or more specific examples, you will be giving and whose propose is to illustrate the general statement, but not to prove the particular kind of statement.

So, basically, illustrations will make the statement little bit clearer. Suppose, I give you some examples, may be some example of abstract idea may be little bit clearer. Otherwise, you know, it will be very difficult to find out the conceptual linkages to the particular kind of abstract, massage your friend is trying to make you understand. So, here is an example, which comes under the category of illustration. You will find 1000's of illustration in many scientific textbooks.

Or even in day to day discourse also, you will find lot of example, which the job of explanation, which to clarify the thing. In debates about, it is an example in debates about the environment, the most important way of regarding living things, collectively has been to regard them as species. So, this is the one with general statement, which the arguer is trying to make.

Now, whatever follows after that, now for example, when environments worry about the future of the blue whale, they usually are thinking of the blue whale as a species rather than of individual blue whales? It seems to be making the first statement, little bit clearer. Again, the idea of the passage is to illustrate the statement, which is mentioned in the first sentence of this paragraph.

But, not to prove the particular point, it is just showing there are debates and all. But, the debates the environment, the most important way of regarding living things collectively has been to regard them as species. Here, it is trying to provide some kind of examples to support this particular kind of thing.

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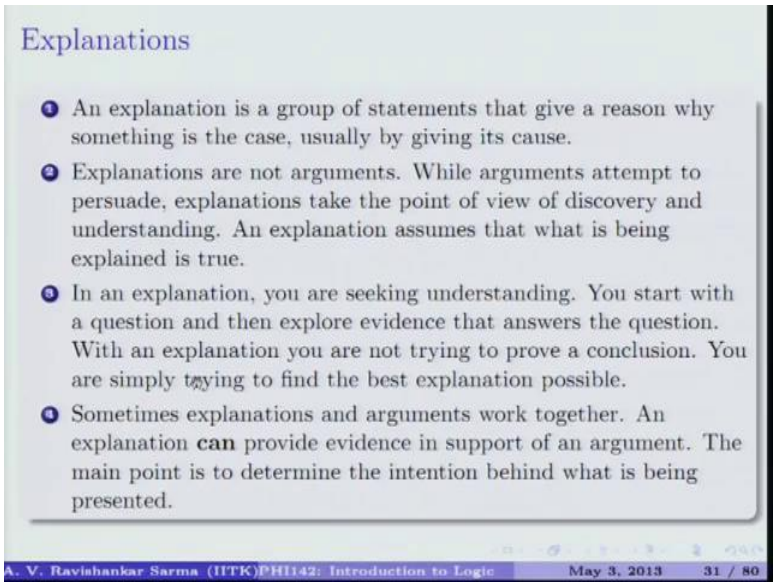

So, again the inferential claim is missing in this one. This also comes in the category of non arguments. So, it is called as non inferential kind of passages. So, the idea here is this that, our English language passage is crowded with illustrations, examples, the explanatory passages, reports, all these things. From all these things, we are trying to extract something, which are inferential kind of passages.

So, once you find these inferential passages and you have an argument at hand, and then you can start saying, what kind argument it is deductive or inductive. If it is deductive argument, that are the characteristics of that particular argument. If there is inductive argument what kind of what are the characteristics of the particular kind of argument, etcetera. So, we can talk about lots of other things.

So, here is an example, which comes under the category of non arguments. Usually, it is very difficult for us to accept that explanations are that come under the category of non arguments. But, at the basic level, usually we treat explanation as non argument in a particular sense. So, explanation is a group of statements that give a reason, why something is the case.

Usually, by giving some kind of causes, suppose if you say, sky is blue and all and if you ask why, then they will give some explanation for that particular kind of thing. So, you give us some kind of reason, why it is a case. So, explanations are not arguments. So, it is in the sense that, arguments attempt to persuade, whereas, explanation take the point of

view of discovery. Discovery is already there, the sky is blue and some kind of understanding, it gives us understanding of sky is blue and so and so.

So, an explanation assumes that, what is being explained already true and all. But, in a case of argument, that is not the case. In an explanation, we are seeking some kind of understanding; that means, we start with some kind of questions, why the sky is blue, why the ocean water is blue, in the ocean, all these things, we will try to ask. And then explore evidence answers that particular kind of question.

With an explanation, you are not trying to prove a conclusion. Again, it is non inferential. You are simply trying to find the best explanation possible for the blueness of the sky, etcetera. Sometimes, they do work together; arguments and explanation are crowded together. And explanation can provide evidence in support of an argument. The main point is to determine the intention behind what is being presented in.

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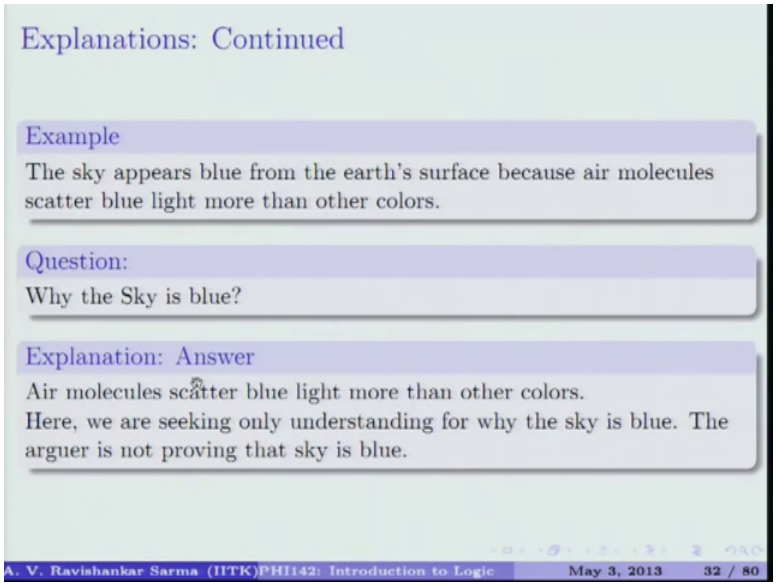

So, some of things, which we need to talk about, why it is the case that. There is confusion between explanations and an argument is because of the fact that, both of them seem to be having relatively similar kind of structure. In an argument, what is important are premises and conclusion premises are provides adequate reasons for conclusion to be true.

In the case of the explanation, we have something called the norms; we serve as premises, looks like they are closer to premises. And empanada, the one which explains the sky is blue, etcetera. So, that seems to be serving like a conclusion, but actually that is not the case. So, here is an example, the sky appears to be blue, from it is earth surface. Now, he is giving the reason, because the air molecules scatter blue light more than other colours, because of the Raman Effect, etcetera.

You are saying that, the sky is blue. The question that is trying to answer is, why the sky is blue or not. The explanation is missing this thing. The air molecules scatter blue light more than the other colours, because of this; it appears to be blue colour. So, here, we are seeking only understanding of why the sky is blue, the arguer is not proving that the sky is blue.

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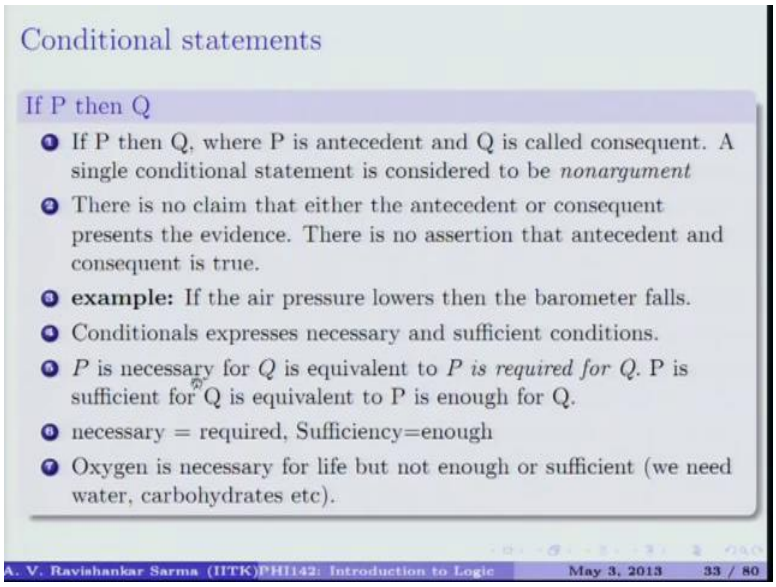

So, we will talk about the explanation in little bit detail the context comes. So, in an explanation, what it does is this, it tells us, why this is the case. Whereas, the argument in the general structure of arguments, you have premises and the conclusion. Premises claim to provide some kind of adequate support to the conclusion. So, we should not mistake in explanation with arguments.

In explanations we are trying to provide some kind of reasons, why it is the case. So, there are some other kinds of things, which come under the category of non arguments. They are conditional statements. Conditional statements are usually expressed in P, then

Q. If P is called as antecedent and Q is called as consequent. So, we need to note that, a single conditional statement is not treated as argument. It is treated as non argument.

If it rains, then the grass is red. So, there is single conditional sentence, where rain is considered as antecedent and the grass is consequent. A single conditional statement will come under the category of non argument. But, conditional statement, and then some kind of proposition will make it as argument. If it rain grass is wet, it needed rain and the grass is ready, if you say that thing, then that will become an argument.

A single conditional statement in isolation, never come under the category of argument. So, again in that particular kind of statement, the rain the grass is wet. There is no claim either the antecedent. That is the rain or the consequent presents some kind of evidence. So, there is no assistance that the antecedent or consequent is true. So, one example is, if the air pressure lowers, then the barometer falls. So, the conditionals, why we talk about conditionals sentences, because it expresses necessary and sufficient conditions.

So, suppose if you say P is necessary for Q, that is equivalent to P is required for Q. P is sufficient for Q is nothing but P is enough for Q. Necessary means, it is required without that, nothing is possible, example, if you say, oxygen is necessary for life. Otherwise, it is difficult to survive. You can say, water is sufficient to live and all, water or food stuff that you take, but without oxygen, it is difficult.

Sufficiency, I talking about enough, this example make this point clear. Oxygen is necessary for life, but not enough or sufficient. We need water, carbohydrates, etcetera. Apart from oxygen and all, what we need is carbohydrates, fat, proteins, etcetera. So, by this I will come to the end of this lecture. So, let us talk more about the necessary and sufficient conditions.

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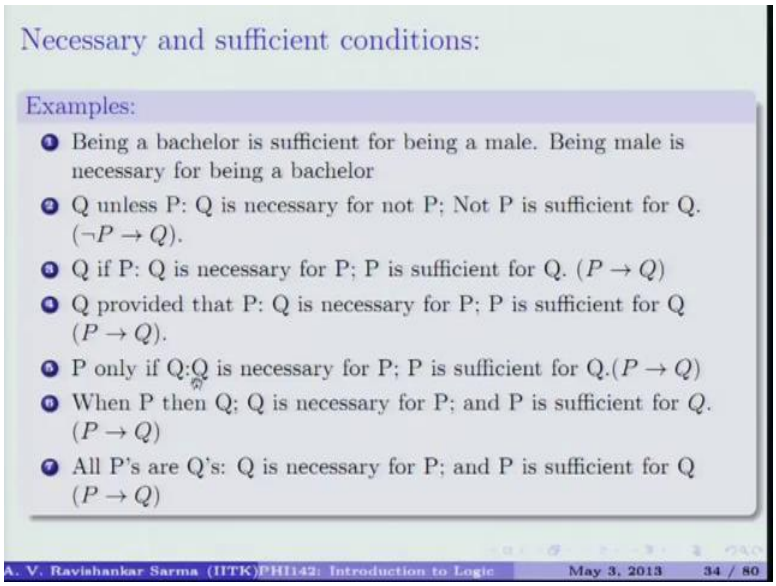

Being a bachelor is sufficient conditions for being a male and being a male is necessary for being a bachelor. First is the sufficient condition, second one is necessary condition. So, there are some other translations and all, which I will talk about the propositional logic, usually this comes under the category of concepts and all. Q unless P, Q if P, Q if P is treated as Q is necessary for P.

Suppose, if you want to express the necessary condition between P implies Q. Then, the necessary condition expressed as Q implies P and the sufficient condition is expressed as P implies Q. So, in this lecture, what we talked about is simply this that, we talked about different kinds of non arguments. In the non arguments, piece of advice, warning, report, expository passage, explanations, a single conditional statement in isolation and we saw that all these thing, comes under the category of non inferential passage.

Since, these are all non inferential passages, these comes under the category of non arguments. In the next lecture, we will talk about different kinds of arguments. Now, since you can identify, what is an argument and what is the non argument. Then, we will focus our attention on various types of arguments. We say that, there are two types of arguments, which we commonly study in logic. They are deductive and inductive arguments. So, what distinguishes the deductive and inductive arguments occupying, we will see in the next lecture.