

Course Name: 'Introduction to Pāṇinian Grammar'
Professor Name: Prof. Malhar Arvind Kulkarni
Department Name: Humanities and Social Sciences (HSS)
Institute Name: IIT Bombay
Week:03
Lecture:13

Welcome. I welcome you all to this lecture in the course 'Introduction to Pāṇinian grammar'. We are studying the features of the Meta-Language of Pāṇini. We have already discussed the concept of Meta language and we also said that there are three additional features, additional differences in the Meta language other than the object language. The object language of Pāṇinian grammar is Sanskrit, the Meta language is also Sanskrit

and in this Meta language some features are followed from the object language. But there are some additional features and that is what we are studying right now.

The first difference was about the meaning of a word and we said that in the object language a word denotes some meaning which is of two kinds, one is what is generally known as meaning and the other one is the word-form which is part of the meaning and in the object language, it is the meaning meaning which is the head main predominant and the word-form is subordinate or qualifier or modifier and then we said that in the Meta language, it is the word-form which becomes the head or the main or the predominant meaning and the meaning-meaning becomes subordinate or the qualifier or the modifier. This is an extremely important difference and that is why we are repeating that information.

Based on this, we also said that in the meta language the meaning of the cases, some of the cases is different in addition to what these cases denote in the object language and they are 5th case, 6th case and 7th case, 'pañcamī', 'ṣaṣṭhī' and 'saptamī'. 'Pañcamī' is translated in the object language using the word 'from', 'ṣaṣṭhī' is translated in the object language using the word 'of' and 'saptamī' is translated in the object language using the word 'in' or 'on'.

In the Meta language however, 'pañcamī' will be translated as 'immediately after', 'ṣaṣṭhī' as 'in place of' or 'instead of' and 'saptamī' will be translated by the words 'immediately before'. This is also an extremely important difference in the Meta language of Pāṇini. This follows the first difference and then we are studying the technique of 'pratyāhāra' and that is what we have to study further in today's lecture.

So, in the previous lecture we saw the traditional sound inventory which is arranged in terms of vowels first and consonants then and within these consonants there are three groups visible, one

is a group of 25 consonants also known as class consonants divided into 5 rows and 5 columns and then there are four more called semi vowels 'y', 'r', 'l', 'v' and finally, the fricatives 'ś', 'ṣ', 's' and 'h' and then we also saw how the term 'it' comes into being and helps form the first pratyāhāra 'hal' and now we will study this concept further in detail in today's lecture.

So, on this slide we have 14 sūtras mentioned and all the final sounds of these 14 sūtras which are termed 'it' by 1.3.3. They are marked in red. So, 'ṅ' in the 1st sūtra, 'k' in the 2nd sūtra 'ñ', in the 3rd sūtra, 'c' in the 4th, 'ṭ' in the 5th, 'ṇ' in the 6th, 'm' in 7th, 'ñ' in 8th, 'ṣ' in 9th, 'ś' in 10th, 'v' in 11th, 'y' in 12th, 'r' in 13th and 'l' in 14th. These 14 sounds are marked are termed as 'it'.

Now, the next question is how to form the 'pratyāhāra'? We have seen the technique in theory how the 'pratyāhāra' gets formed. Now, let us look at the concrete examples as to how the 'pratyāhāra' gets formed. We said that first we have to pick up a final sound which is termed as 'it', any one of these 14 sounds you can pick up and place it somewhere, then select any sound previous to it in the 14 sūtras and place it before the 'it' and then join these two sounds together and what comes out is a technical term and this technical term is called 'pratyāhāra'. This technical term is generically called a 'pratyāhāra'. So, here is an example, concrete example. So, select 'c' which comes at the end of the 4th sūtra 'a i u ṅ', 'ṛ ṛ k', 'e o ñ', 'ai auc', 'c', select which comes at the end of the 4th sūtra and place it somewhere.

Now select any letter that comes before it. For this example let us select 'a' which comes right in the first sūtra, in fact, the very first sound and then place it before 'c' and join both what you get is 'ac'. Now, 'ac' is a technical term and this technical term is generically called 'pratyāhāra'. 'Ac' is a technical term and is generically called 'pratyāhāra'. This is how 'ac' gets formed and in this 'c' is still shown in red colors and the reason will be clear in a while.

Now, the next question is what does 'ac' mean? What does it stand for? What does this technical term denote? So, here is the answer the technical term 'ac' denotes one all the sounds that come in between 'a' and 'c', that is one as well as 'a' which is the beginning sound. So, all the sounds that come in between 'a' and 'c' as well as 'a', this is in accordance with A 1.1.71 'ādirantyena sahetā' which we have already seen. The most important thing to note here is that this list of sounds does not include the markers that come in between at the end let us say 1st 2nd and 3rd sūtra, 'a i u ṅ', 'ṅ' does not come as a become a part of this 'pratyāhāra'. 'E o ñ', 'ñ', 'ṛ ṛ k', 'k', these three they are not part of this 'pratyāhāra'. They are not denoted by this 'pratyāhāra'. I repeat the list of sounds does not include the markers the 'its' that come at the end of 1st 2nd and 3rd sūtra. This is not explicitly stated in the Aṣṭādhyāyī, but this is what is assumed this is what is known by the tradition and has passed it down through generations.

So, what is the meaning of 'ac'? 'Ac' stands for say all the sounds between 'a' and 'c' that is starting from 'a' then 'i u', this is your 1st sūtra, 'ṛ ḷ' 2nd sūtra, 'e o' 3rd sūtra and 'ai ou' 4th sūtra and then there is 'c' here, but that is not part of this set, 'a' however is part of this set and this is what we meant when we indicated only 'c' in red and 'a' in normal black. 'A' is part of this meaning that is denoted by this technical term.

So, 'ac' stands for a set of sounds ' a i u ṛ ḷ e o ai' and 'au'. If you look at them closely you will observe that they are all vowels mentioned in these 14 sūtras. So, 'ac' therefore, stands for all vowels. So, this short term 'ac' does capture a data set there are in all 9 vowels which are denoted by this small term 'ac', all vowels.

How will it be used? If it is observed in the actual usage in the object language that any vowel or all vowels are part of a particular grammatical operation, be it a condition, be it a substituent, be it a left-hand side or right hand side condition or environment and it is to be described for the description of that particular grammatical operation. Pāṇini will use the pratyāhāra 'ac' which stands for all vowels and depending upon the side of the environment or being a substitute or substituent case will be added to 'ac', case will be added to 'ac'.

So, for example, here are a few examples for you. There is a sūtra 'aco yat' A.3.1.97, 'aco yat', 'aco is 5/1 of 'ac' which means immediately after all vowels an element is to be added that is the meaning of this 'aco'. So, what it stands for is a left-hand side environment. So, if 'yat' is to be added, the left-hand side environment for that is a vowel, a vowel ending 'dhātu' which we shall study later on.

Let us take the second example, 'aco ṅṅiti' 7.2.115. 'Aco' here is in the 6th case, ṣaṣṭhī 6 slash 1. What it means is 'in place of'. So, 'aco' means in place of all vowels. So, in place of all vowels that is 'ac', a substitute takes place. So, 'ac' is the substituent here and therefore, it gets 6th case attached to it. Similarly, let us look at the third example, 'iko yaṅ' and 'aci' here 'aci' appears in the 7th case, 7 slash 1. This is 6.1.77. 'Aci' is 7 slash 1 of 'ac' which means immediately before all vowels. So, immediately before all vowels that is 'ac', a substitution takes place.

So, here 'ac' acts as a right hand environment. On this slide we studied how cases get attached to the pratyāhāra 'ac'. Here is the 5th case, this is the 6th case and this is the 7th case. In this 5th case, 'ac' that is a vowel acts as a left hand environment in which certain element is added. This second case 'aco', which is 6/1 acts as a substituent for a substitute to take place and in case of this third sūtra 'iko yaṅ aci', 'aci' indicates that a vowel acts as a right hand side environment for the substitute to take place. So, depending on the environment, the pratyāhāra is providing, cases will be added to it and 'acaḥ', 'acaḥ' and 'aci' will be used by the grammar of Pāṇini.

Let us take another example, the second example. Now in this second example, let us try to form the pratyāhāra 'hal' which is what is shown over here 'hal'. How is 'hal' formed? So, follow the same procedure by picking up a final sound. Final sound at any of the sūtras and term it as 'it' then place it somewhere and then select any sound which appears before it in the 14 sūtras and place it before this 'it' already selected 'it' and then join both of them together that is a technical term and this technical term is called a pratyāhāra. So, for the second example purpose, let us select 'l' which comes at the end of the 14 sūtras.

So, we selected 'l' and now we place it in front of us then select any letter that comes before it. So, let us select 'ha', which comes in the 5th sūtra and place it before 'l' and now join both of them together and you get 'hal' as a technical term this is our second technical term 'hal'.

Now, what does 'hal' mean? Once again, we have put 'l' in red for obvious reasons which shall be clear once again. So, what does 'hal' mean? 'Hal' means all the sounds that come in between 'ha' and 'l', starting from the 5th sūtra up to the 14th sūtra, all the sounds that come in between 'ha' and 'l'. This is in accordance with 1.1.71 that these sounds are denoted by 'ha' and 'l' and also the 'ha' sound; obviously, this list of sounds does not include the markers that is 'it' terms that come at the end of all the sūtras in between from 5th to 13th.

This is not explicitly stated in the Aṣṭādhyāyī, but it is understood. There is one more thing that we need to note down here and that is that this list starting from 'ha' to 'l', this list does not include the recurrence of vowel 'a' after 'h', for example, here this written symbol 'ha' is a symbol of consonant 'h' plus vowel 'a', 'ya' is consonant 'y' plus vowel 'a', 'va' is consonant 'v' plus vowel 'a', 'ra' is consonant 'r' plus vowel 'a', 'la' is consonant 'l' plus vowel 'a'.

This 'l' is pure consonant mark. This is the consonant and this is consonant plus vowel. Now what to do with this vowel? Is it a part of this set and the answer is that this list does not include the recurrence of this vowel 'a' everywhere over here which gets mentioned with each consonant it is specified by the tradition although not explicitly by Pāṇini, but by the Pāṇinian tradition that this vowel 'a' that appears together with each and every consonant in this set is for the sake of clear comprehension of consonants.

Imagine these consonants are written without a vowel in between, it would be very difficult first of all to pronounce them the impossible and also very difficult to write them down. So, for easier comprehension purpose vowel 'a' which comes at the beginning of all the vowels is added after each and every consonant, but only the consonants are part of this meaning denoted by the pratyāhāra 'hal'. This is what is the meaning of the pratyāhāra 'hal', this is what the pratyāhāra 'hal' means.

What it eventually means is all consonants, all consonants. If you look at all these sounds mentioned in the 14 sūtras, they are all consonants. All the vowels were taken care of by the pratyāhāra 'ac'. 'Hal' now takes care of all the consonants. 'Hal' denotes the consonants. So, we have come across the term 'halanta' probably in some school days that 'halanta' refers to a consonant written as consonant in this fashion that can stand explained if you understand the concept of 'hal' over here. 'Hal' stands for all the consonants in this particular fashion.

Now, how will it be used the term 'hal'? How will Pāṇini use it? The usage will have following steps. If it is observed that any consonant or all consonants are part of a particular grammatical operation, be it a left hand side environment or the right hand side environment or be it a substituent, if it is a part of a grammatical environment for a grammatical operation to take place and it should be described then Pāṇini will use the pratyāhāra 'hal', as simple as that and depending upon the side of environment or being a substitute or substituent, case will be added to this 'hal'.

And let us take a look at some examples over here. The first example is 8.4.64 'halo yamām yami loṇḥ', 8.4.64. In this sūtra, the word 'halo' is used which is five one of 'hal'. what it means is 'immediately after all consonants' that is immediately after 'hal'. So, what this sūtra means is that immediately after all consonants, an element is substituted by another element.

For our relevance 'hal' acts as the left-hand side environment over here, that is why it comes in the 5th case. So, 5th case is added after the pratyāhāra 'hal' over here. Let us look at another example, in which 'hal' is used in the 7th case and we have the sūtra 'hali loṇḥ', 7.2.113 'hali loṇḥ'. Here 'hali' is 7 slash 1 of 'hal', what it means is immediately before all consonants that is 'hal', a particular element is to be substituted.

So, in this sūtra 'hal' is acting as the right-hand side environment. So, immediately before all consonants, some substitute happens in order to describe this 'hal' is acting as the right-hand side environment, in order to describe this Pāṇini will use 7th case and attach it to the pratyāhāra 'hal'. Similarly, if we look at the sūtra 'hali sarveṣām', 8.3.22 in which 'hali' once again occurs in 7th case in this case again where 'hali' means immediately before all consonants a particular element gets substituted. So, in this case 'hal' is acting once again as the right-hand side environment and therefore, the 7 case is added after the pratyāhāra 'hal'. This is how 'hal' pratyāhāra will be used.

Let us take one more example with the final consonant 'l' once again. This is the third example which shows to us how to form the pratyāhāra. We follow the normal routine by picking up a

final sound which is termed as 'it', place it in front of you, select any sound previous to it and place it before the 'it' and join them both together. Now, this term is generically called pratyāhāra. So, select 'l' over here which comes at the end of the 14th sūtra once again and place it in front of you, then select 'a' which comes in the very first sūtra, in fact the first sound and place it before 'l' and now join both of them together and you get the form 'al', 'al' and 'l' is still mentioned in red for the obvious reasons explained before. So, we get the technical term 'al'. This is called a pratyāhāra generically.

Now, how will it be used? 'al' and how what will it mean? So, 'al' will mean all the sounds that come in between 'a' and 'l', all the sounds and 'a' as well. This is in accordance with 1.1.71; obviously, once again all the markers that is the 'it' sounds that come in between from sūtra 1 to 13 they are obviously, not part of the meaning of this pratyāhāra.

Similarly, as far as the consonants are concerned, any vowel that is uttered after each consonant which is part of this pratyāhāra meaning that is also not to be counted that is only for the sake of convenience, only for the sake of distinguished comprehension of consonants. So, we come to know that 'al' stands for all the sounds that are described in these 14 sūtras, any sound or all the sounds.

Now, let us see how this pratyāhāra will be used. So, if it is observed that any sound is part of a particular grammatical operation, be it an environment left hand side or right-hand side or a substituent or a substitute and that is to be described, then Pāṇini will use the pratyāhāra 'al' and depending upon the side of the environment or being a substitute or substituent case will be added to 'al'.

For example, 'alontyasya' 1.1 52. In this case 'alaḥ' appears in 6 slash 1 of 'al', in place of 'al', that means in place of any sound substitute something. So, 'al' acts as the substituent in this case. So, this sūtra is a meta rule and we shall study the meta rules further in the subsequent part of this course where we shall study this sūtra in detail, but in brief the meaning of this sūtra can be said, can be told as any substitute takes place at the final 'al' or final sound. This is how Pāṇini will use the pratyāhāra 'al'.

Now, let us look at the meaning of 'iko yaṇ aci' which was discussed earlier. 'iko' is 6th one of 'ik', 'yaṇ' is 1/1 and of 'yaṇ' and 'aci' is 7/ 1 of 'ac', 'ac' is any vowel. So, the meaning of this sūtra is immediately before an 'ac' that is any vowel, substitute 'yaṇ' in place of 'ik'. So, 'ac' is acting as the right-hand side environment, 'yaṇ' is the substitute and 'ik' is the substituent.

So, what is 'ik'? Following this technique of forming the pratyāhāra, let us see how 'ik' is formed. So, we select, we pick 'k', which is found at the end of the sūtra 2 and we place it in front of us then we pick 'i', which is found in sūtra 1 and place it before 'k' and then join them together and we get the word 'ik', we get the pratyāhāra 'ik'. Now, this term stands for all sounds in between 'i' and 'k', that is 'i', 'u' part of the first sūtra, 'ṅ' which is the marker, not part of the pratyāhāra and 'ṛ' and 'ḷ', so 'i', 'u', 'ṛ', 'ḷ', they are stated by the pratyāhāra 'ik'.

What is 'yaṅ'? Once again the general procedure of forming the pratyāhāra, we follow that is we pick up a final sound which is termed as 'it' and place it before us, then select any sound previous to it and place it before this selected 'it' and join them together and that will give us a pratyāhāra. So, we select 'ṅ' which is found at the end of sūtra 6, then we pick 'ya' from sūtra 5 and place it before this 'ṅ' and then we join them together and we get the term 'yaṅ'.

Now, this term stands for all the sounds that come in between 'ya' and 'ṅ' and also 'ya'. So, 'yaṅ' stands for 'ya', 'va', 'ra' which are part of the 5th sūtra, 'ṭ' which is a marker at the end of the 5th sūtra is not part of this set and then we go to the 6th sūtra where 'l' becomes a part of this sūtra. So, 'ya', 'va', 'ra', 'la', they are part of this set which is denoted by the pratyāhāra 'yaṅ', 'ya', 'va', 'ra', 'la' are mentioned as they are stated in the 14 sūtras over here, but they are also shown as consonants which is what is actually meant as the meaning of this pratyāhāra. This is for the clear comprehension.

Now, putting all these things together, let us try to make the meaning of 'iko yaṅ aci'. What it means is if we replace 'ik' by what it stands for, 'yaṅ' by what it stands for and 'ac' by what it stands for and follow the meanings of the cases, we can write the meaning of this sūtra like this.

Immediately before 'a i u ṛ ḷ e o ai au', immediately before this set, substitute 'i u ṛ ḷ', by 'yaṅ' consonants that is the meaning. To put it in the form of an equation what we can say is if you have 'i u ṛ ḷ' plus 'a i u ṛ ḷ e o ai au' any of these, then after applying 'iko yaṅ aci' over here you get the output in the form of 'ya', 'va', 'ra', 'la' consonants plus 'a i u ṛ ḷ e o ai au' that is the output.

To look at the individual example, if you have let us say 'i' followed by any of these vowels, 'i' is substituted by 'y'; that means, the output that you get after applying 6.1.77 you get 'y' consonant plus all these vowels. So, this is how 'iko yaṅ aci' will be interpreted using the technique of pratyāhāra.

So, the expanded meaning of 'iko yaṅ aci' is something like this, 'i' followed by any vowels and 'i' will be replaced by 'y', substituted by 'y' consonant and the output would be 'y' plus any of the

vowels. Second will be 'u' followed by any vowels and 'u' will be substituted by 'v' consonant and the output would be 'v' plus any vowels. Similarly, 'ṛ' followed by any of the vowels, 'ṛ' will be substituted by 'r' consonant and the output would be 'r' plus any vowel. 4th will be 'ḷ' followed by any vowel and 'ḷ' will be substituted by 'l' consonant and the output would be 'l' plus any consonant.

Let us take one concrete example and the other example on the right-hand side. So, here are the two examples, one is 'madhu' plus 'ari' put in the square bracket to indicate that this is the compound, same thing is true about the second example also. So, actually what it, what it denotes is there is this 'u' followed by 'a'. So, this is 'u' followed by 'a' wherein 'u' is substituted by 'v' consonant and the output is 'v' plus 'a'. So, 'madhu' plus 'ari' and you apply 6.1.77 here, because there is scope for application of 6.1.77 and you get the output in this form 'madhv' plus 'ari', you join it together and you get the word 'madhvāri' which means the enemy of 'madhu'.

Similarly, in this case you have 'dhātṛ' plus 'icchā' which is nothing, but 'ṛ' followed by 'i' which then will mean 'r' followed by 'i' wherein 'ṛ' is substituted by 'r' and the output is 'r' followed by 'i'. So, 'dhātṛ' will be modified to will be substituted by 'dhātr' followed by 'icchā' and you get the form 'dhātrīcchā', the desire of the creator.

These two examples are the concrete examples in the object language, which and which are explained using the sūtra 6.1.77 'iko yaṅ aci' and there are multiple numbers of such examples which then can be explained away using 6.1.77. Thank you and now we shall see some more pratyāhāras, important pratyāhāras in the next lecture.

Thank you for your attention.