

Course Name: 'Introduction to Pāṇinian Grammar'
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Welcome. I welcome you all to this lecture in the course Introduction to Pāṇinian grammar. We have been studying for some time now the process of speech production. This is an extremely important part of the course and that is why we have studied it in some detail, some aspects we have studied in some detail. It can be studied further in some more detail, but that we will reserve for the advanced course right. Now, we have seen the process of speech production and the internal process. And then we also saw the external or the physical or the biological process which leads to the actual production of the speech symbols which are also audible.

Now, in this lecture we shall look at the features of sounds which we also we have studied earlier. But right now we will take individual sounds and note down their features as far as the information that we have gathered in the previous lecture notably the place of articulation, the effort of articulation, the length and also the accent. So, let us look at individual sounds and see what features they have we will also see what is the purpose of recording down these features. Now, we will also base ourselves upon the traditional sound inventory that we have seen. To recap we have studied this source Pāṇinīyaśikṣā and the versus, "ātmā buddhyā sametyārthān mano yuñkte vivakṣayā manaḥ kāyāgnim āhanti sa prerayati mārutaṁ mārutastūrasī caran mandraṁ janayati svaram sodīrṇo mūrdhnyabhīhato vaktramāpadya mārutaḥ varṇān janayate".

We also noted down these 8 stages of speech production and all of them we have studied so far. 'ātmā buddhyā sametyārthān' being the first stage, 'mano yuñkte vivakṣayā' being the second and it is these two which are cognitive in nature. And then starts the physical production of the speech 'manaḥ kāyāgnim āhanti' the third, 'sa prerayati mārutaṁ' the fourth, 'mārutastūrasī caran mandraṁ janayati svaram' the fifth, 'sodīrṇo mūrdhnyabhīhato' the sixth, 'vaktramāpadya mārutaḥ' the seventh, 'varṇān janayate' the eighth one these are the stages of speech production mentioned in the Pāṇinīyaśikṣā that we have studied.

Now, we also noted down in the earlier lecture that these sounds that are produced in this process can be classified into two straight groups based on the length that is required to produce them. The first group can be called the group of vowels and the second one the consonants. We also noted that the vowels require minimum 1 mātrā. mātrā is the measurement to measure the time span required to produce a particular sound. But the vowels require a minimum 1 mātrā and they can be also pronounced using 2 and 3 mātrā. And the consonants they require only half a mātrā that is the basic difference between the consonants and vowels. And therefore, these two groups can straightaway be made. And now we will study these two groups and the members of these two

groups the sounds that are classified under vowels and under consonants individually and see what features they have. First let us study the vowels. The important point to note here is that it is about all the sounds, but also about vowels that these are individual sounds which do not convey any meaning by themselves per say.

Generally, generally this does not happen 'a', 'u' etcetera 'r' individually they do not convey any meaning, but they are definitely part of a group of sounds which conveys meaning. It is only these sounds which are used in Sanskrit to convey meaning. A Sanskrit speaker can pronounce much more amount of sounds no doubt about it. But it is only these sounds which are used to convey some meaning it is only these sounds which are meaning bearing speech units used for communication in the social arena of course. And it is proven by contrastive measures and we shall study this aspect as well in the advanced level course, how this is studied and how the Sanskrit grammarians studied this contrastive aspect.

Another important point to note here is that in this lecture we are going to present only the description used in the Pāṇinian grammar. This is what we did also in the last lecture we do not compare it with the description done by modern scholars. The modern scholars had much more advanced technology with them to study and compare different sounds and their features. So, they have come up with a much more advanced system and we can study this aspect in an advanced level level course on the Pāṇinian grammar later on. However, we confine ourselves to the information that we get from the Pāṇinian sources because and it is important to do this because it is on the basis of these sources that the grammatical system is constructed. The method of substitution that is employed in the Pāṇinian grammar goes deeper up to the sounds and substitutes the sounds. And for that it uses these features as an important criterion. And that is the reason why it is important for us to study these features we shall compare with them and present the diagrammatical representation etcetera later on.

So, let us now look at each vowel. So, let us look at vowel 'a'; vowel 'a' has 18 varieties, there are 18 sounds. And they are shown in the second bullet, how the number 18 is arrived at. So, there are 3 varieties as far as the length of the vowel is concerned hrasva short vowel, dīrgha long vowel and pluta prolated. hrasva 1 mātrā, dīrgha 2 mātrā and pluta takes 3 mātrā multiplied by the accent the pitch or tone udātta anudātta and svarita multiplied by the nasalized version namely anunāsika and niranunāsika. And so, you have 3 multiplied by 3 multiplied by 2, 18 varieties of a in Sanskrit. So, there are 6 varieties of hrasva length a, 6 varieties of dīrgha length also pronounced as a and 6 varieties of pluta which are a. The sthāna, the place of articulation using which this a is pronounced is called kaṇṭha or velum.

A ābhyantara prayatna is vivṛta and there is also some saṁvṛta, but we will talk about it now. So, this 6 hrasva varieties have saṁvṛta as ābhyantaraprayatna whereas, the 12 varieties namely the 6

dīrgha and 6 pluta they have vivṛta as a ābhyantaraprayatna. There is an important point to note here that the entire rule base of the Aṣṭādhyāyī the Pāṇinian grammar is trained in such a way that it does not know this difference.

It treats them as non different; that means, the 6 varieties of hrasva a they are also trained to have vivṛta as a ābhyantaraprayatna and not saṁvṛta. Only the last sūtra in Aṣṭādhyāyī 8.4.68 states this difference namely that hrasva a had saṁvṛta ābhyantaraprayatna which is not known to the rest of the text as per 8.2.1 This is a very clever design, clever device on the part of Pāṇini to do in his own grammar for various purposes which we shall see later on. This is an extremely important thing to remember about 'a'.

Let us go to 'i' now, 'i' also like has 18 varieties, 3 of the length hrasva dīrgha pluta. hrasva short, dīrgha long and pluta prolated multiplied by accent udātta anudātta and svarita multiplied by anunāsika and niranunāsika. So, 3 multiplied by 3 multiplied by 2 that is 18. There are 6 varieties of hrasva i, 6 of dīrgha ī and 6 of pluta ī. The place of articulation or uccāraṇasthāna for all these 18 varieties is tālu or palata and the ābhyantaraprayatna for all these 18 varieties is vivṛta.

Then let us go to 'u', similarly u also has 18 varieties. 3 related to the length hrasva dīrgha pluta multiplied by taxions udātta anudātta svarita multiplied by the nasalized version anunāsika and niranunāsika. So, 3 multiplied by 3 multiplied by 2 once again are 18. There are 6 varieties of hrasva 'u', 6 varieties of dīrgha 'u' called 'ū' and 6 varieties of pluta u u. The place of articulation used for the pronunciation of this sound is lips oṣṭhau, ābhyantaraprayatna for 'u' is vivṛta.

Then we go to ṛ once again this sound also has 18 varieties. 3 related to the length hrasva dīrgha and pluta multiplied by 3 accents udātta anudātta and svarita multiplied by 2 nasalized and unnasalized versions, 3 multiplied by 3 multiplied by 2; 18 varieties.

There are 6 varieties of hrasva ṛ, 6 varieties of dīrgha ṝ and 6 varieties of pluta ṛ. The place of articulation for this sound is mūrdhan or roof of the oral cavity. ābhyantaraprayatna is obviously, vivṛta. There is something more that we need to know about ṛ. Nowadays, the pronunciation corresponding to this written symbol is not made as per the description made in the text. Categorically, there are regional variations that are found.

So, for example, this sound is pronounced in some region as ri and also transliterated by writing ri. Whereas, in some other region the same sound is pronounced as ru and also transliterated as ru. The original Sanskrit pronunciation is lost; however, there is description using which this can be reconstructed, but that we shall study later on.

Let us now take a look at ऌ unlike the sounds that we have seen so far the vowels this is peculiar because it has only 12 varieties. As far as the length is concerned there is no dīrgha length available only hrasva and pluta are available multiplied by udātta anudātta svarita multiplied by anunāsika and niranunāsika varieties and we get the 12 varieties. There are 6 hrasva ऌ and 6 dīrgha ऌ, the place of articulation of this sound is danta tooth or teeth and the ābhyantaraprayatna the internal effort of articulation is vivṛta. There is something to note about this also this is a very peculiar vowel it does not have a long variety. Its pronunciation is lost from the time of the VyākaraṇaMahābhāṣya of Patañjali 150 BCE, but the tradition of Pāṇinian grammar has still retained this vowel.

Only a handful of words in Sanskrit have retained this vowel in the written form. And; obviously, the pronunciation is influenced once again by the regional regional pronunciation. So, this is pronounced as li in some regions and 'lu' in some other regions also transliterated as 'li' in some regions an 'lu' in some other regions.

Then we go to 'e' this also has 12 varieties, not 18. And in this case now the rest of variety is absent there are only dīrgha and pluta varieties as far as the length is concerned plus the 3 multiplied by the 3 accent varieties multiplied by the nasalized varieties. So, 2 multiplied by 3 multiplied by 2 there are 12 varieties of this. So, there are 6 dīrgha e and 6 pluta e. The place of articulation in this case is twofold kaṅṭhatālu willim as well as pallet and ābhyantaraprayatna is vivṛta.

The next sound vowel is 'ai' this again has 12 varieties dīrgha and pluta in terms of length and then udātta anudātta svarita as far as accent is concerned, anunāsika and niranunāsika as far as nasalized version is concerned. So, you have 2 multiplied by 3 multiplied by 2 that is the 12 12 varieties. There are 6 dīrgha varieties 'ai' and 6 pluta varieties 'ai', the place of articulation for this sound is once again kaṅṭhatālu willim and palette both both together and ābhyantaraprayatna for 'ai' is vivṛta.

Next we go to 'o', this also has 12 varieties in terms of length only dīrgha and pluta hrasva is absent. Accent is threefold udātta anudātta svarita multiplied by anunāsika and niranunāsika the nasalized variety; that means, 2 multiplied by 3 multiplied by 2 and we have 12 varieties of o in Sanskrit. There are 6 dīrgha varieties 'o' and 6 pluta 'o'. The place of articulation for this sound is once again kaṅṭha and oṣṭhau the willim as well as the lips and ābhyantaraprayatna is vivṛta.

Next we go to 'au', 'au' has got 12 varieties again. Once again the hrasva variety is absent only dīrgha and pluta varieties multiplied by udātta anudātta and svarita multiplied by anunāsika and niranunāsika. So, 2 multiplied by 3 multiplied by 2 and we have 12 varieties of 'au', 6 varieties of dīrgha 'au' and 6 varieties of pluta au. The place of articulation is sthāna which is kaṅṭha and oṣṭhau

as is the case with o the willim as well as the lips the ābhyantaraprayatna for 'au' is vivṛta this is how individual vowels can be described.

To summarise according to this description there are in all 132 vowel varieties in Sanskrit only 9 are mentioned in the initial enunciation which we also studied in the course of this lecture. So, these 9 are mentioned in the pratyāhārasūtra. So, what is the correlation between these 9 and the actual 132 vowels?

So, a I u r, they all have 18 varieties and therefore, 72 and the remaining 5 ḷ e ai o and au they have 12 varieties each. ḷ does not have the long variety and the remaining 4 e ai o and au they do not have a short variety. So, each of them has 5 each of them has 12 varieties and therefore, 60, so 72 plus 60; 132 vowels.

What is the correlation between the 9 that are actually mentioned in the pratyāhārasūtra and the 132 that can be arrived at by the description provided in the Pāṇinian grammatical tradition as we studied here in this lecture? What is the correlation? Are these 9 representatives of these 132? This; obviously, we shall study at the end of this treatment of this topic.

So, the concept of savarṇa will be introduced which will also deal with this topic and address this question. The concept of savarṇa will clarify that these 9 sounds do represent these 132. All the 18 sounds as far as a I u and ṛ are concerned can be called savarṇa of each other and all the 12 varieties of each of the remaining five vowels ḷ e ai o and au can also be called savarṇa of each other also to be translated as homogeneous with each other. Why? On what basis, this we shall study little later. Now, amongst these if we have to specify only 6 varieties related to a particular length, what do we do? What is the device? Is there a way in Pāṇinian grammar where only 6 varieties can be referred to? Yes, we shall study this also when we clarify the concept of savarṇa.

The next important point is what is the function of these features the features that we have studied with respect to individual sounds. What is the function? The function is that these features act as parameters in selecting a particular substitute from amongst many if the case arises in place of a particular substituent having certain kinds of features which is directed by which is stated by the meta rule sthāne'ntaratamaḥ 1.1.50.

We shall study this also when we look at this process in a nutshell later on.

Now, before closing let us study the maṅgalācaraṇa as is our practice. This maṅgalācaraṇa is taken from a celebrated text called Vaiyākaraṇabhuṣaṇasāra written by a scholar called KauṇḍaBhaṭṭa.

The maṅgalācaraṇa is "śrīlakṣmīramaṇaṁ naumi gaurīramaṇarūpiṇaṁ sphoṭarūpaṁ yataḥ sarvam jagadetadvivartate". I repeat, "śrīlakṣmīramaṇaṁ naumi gaurīramaṇarūpiṇaṁ sphoṭarūpaṁ yataḥ sarvam jagadetadvivartate".

And let us end today's lecture with the 5 sūtra taken from 4.3 they are, yuṣmadasmadoranyatarasyāṁ khañca, tasminnaṇi ca yuṣmākāsmākau, tavakamamakāvekavacane, ardhādyat, parāvarādhamottamapurvācca. I repeat, yuṣmadasmadoranyatarasyāṁ khañca, tasminnaṇi ca yuṣmākāsmākau, tavakamamakāvekavacane, ardhādyat, parāvarādhamottamapurvācca. Now, we shall study the remaining sounds in the next lecture and study the features that they have. Thank you for your attention.