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Welcome, I welcome you all to this lecture in the course Introduction to Pāṇinian grammar. In this lecture we are studying the speech functions of features of sounds. So, far we have studied the process of speech production through the source and now we are studying the functions of the features that are described in the Pāṇinian grammatical tradition of the sounds thus produced. This is the basis for the entire grammatical system that Pāṇini has built.

So, we studied this source Pāṇinīyaśikṣā "ātmā buddhyā sametyārthān mano yuṅkte vivakṣayā manaḥ kāyāgnim āhanti sa prerayati mārutaṁ mārutastūrasi caran mandraṁ janayati svaram sodīrṇo mūrdhnyabhihato vaktramāpadya mārutaḥ varṇān janayate".. And then we said that there are 8 stages first ātmā buddhyā sametyārthān second mano yuṅkte vivakṣayā and we said that these 2 they form the cognitive base and the rest of them are physical or biological. manaḥ kāyāgnim āhanti is the 3rd, sa prerayati mārutaṁ is the 4th, mārutastūrasi caran mandraṁ janayati svaram is the 5th, sodīrṇo mūrdhnyabhihato is the 6th, vaktramāpadya mārutaḥ is 7th and the 8th and the final one is varṇān janayat when the audible speech sounds are produced.

We have been repeating these verses and also these stages for some time now there is a purpose why we repeat this. The fact is that these sources they should be studied and they should be studied again and again and that is the reason why we have been repeating the sources. Now, the process of speech production thus described in the Pāṇinīyaśikṣā produces the sounds and the sounds are also described to possess certain features.

We have also seen this svarataḥ kālataḥ sthānat prayatnānupradānataḥ length kāla or pramāṇa then place of articulation sthāna, effort of articulation namely prayatna and pitch or tone svara. These are some of the features that these sounds have on the basis of which we can classify these sounds. And we did study the classifications as well namely the vowels and consonants and within the consonants also we studied the consonants which are called antastha or semi vowels, then sparśa the 5 classes then the uṣma sibilants ś ṣ s and h and ayogavāha anusvāra visarga jihvāmūlīya and upadhmānīya. And we noted down features of each and every sound in terms of the sthāna the place of articulation and the prayatna.

Within the prayatna we saw that there are 2 types of prayatna described in the Pāṇinian grammatical tradition namely the ābhyantaraprayatna and we describe this as the effort that is required to produce a sound within the oral cavity. After this after the breath enters the oral cavity

and the second one is bāhyaprayatna the external one external to the oral cavity the windpipe the roof of the windpipe etcetera vocal cards etcetera. So, after having studied the features of each and every sound it is important for us to study the functions of these features.

And we have been saying about them also when we summarize the entire discussion. So, let us study these functions in little detail and keep the other details for future course. So, there are 2 important functions noted down on the slide, the first one is savarṇa or homogeneous sound set. This is an important function of the features of the sounds. The concept of savarṇa is being described in the Aṣṭādhyāyī in 1.1.9 and 10 and we shall study these sūtra.

The second important function is sadṛśatama ādeśaḥ closest candidate being the substitute in place of a substituent this is stated by sthāne'ntaratamaḥ 1.1.50 and we shall study these functions in detail from here onwards. This will give us a clear idea about the description of sounds in this particular manner. We also said that this set of features designed and described by the Pāṇinian grammatical tradition can be studied further using the modern technological tools.

In fact, modern linguistics also studies these features of sounds and in fact, they have come up with some other features this can be compared later on. But the point remains and that is that the Pāṇinian grammatical tradition at an early date did know about these features whether all of them stand the scientific tests that we have today or not is immaterial. The point is that these features were noticed and a system was built on the basis of these features most of them are scientific, most of them do stand the scientific tests that we have today.

Some of them and their description needs to be revised, but that apart it is important to note that an entire system given the scientific base is built upon these features. Let us now study the concept of savarṇa in detail. What is the concept of savarṇa? It is described as one sound is homogeneous with another, similarly one sound is homogeneous with another set of sounds not just one sound, but another set of sounds on the basis of certain criteria and these criteria are defined by the 2 sūtras together namely tulyāsyaprayatnaṁ savarṇam 1.1.9 and nājjhalau 1.1.10.

So, there is some representation that seems to be the task once you define which sounds are homogeneous with one another. So, that one sound can represent all the savarṇa all the or the homogeneous sounds. So, savarṇagrahaṇa seems to be the other functions related to this concept of savarṇa. What is savarṇagrahaṇa? The sound mentioned in the pratyāhārasūtra which is homogeneous with another set of sounds represents that set of sounds, this is what is savarṇagrahaṇa also stated by aṇuditsavarṇasya cāpratyayaḥ Pāṇini 1.1.69 of the Aṣṭādhyāyī.

Let us look at 1.1.9 where savarnṇa is defined and the sūtra reads tulyāsyaprayatnam savarṇam, savarṇa means similar asya means place of articulation, prayatna means effort of articulation and in this case the tradition interprets this word to refer to an internal prayatna ābhyantaraprayatna. The effort of articulation that happens inside the oral cavity as described by the Pāṇinian grammatical tradition, the word that is understood in the sūtra is śabdarūpam this is available to us by the very first principle of the meta language of Pāṇini śabdarūpa is word form in this case form of sound.

So, all this put together the meaning of 1.1.9 is the following namely that the form of sound whose place of articulation and internal effort of articulation is same as that of the other such sounds are called homogeneous to each other they are called savarṇa of each other this is the meaning of 1.1.9.

And now let us look at 1.1.10 there are 2 words in this na and the ac-halau which is once again consisting of 2 components ac and hal. So, na ac-halau the earlier sūtra tulyāsyaprayatnam savarṇam is continued and all this put together the sūtra means vowels and consonants ac is a vowel, hal is a consonant. Even if have similar place of articulation and similar effort of articulation they are not to be called homogeneous to each other they are not to be called as savarṇa of each other.

Now, let us look at the sounds which are savarṇa after having put both these sūtras together we can say that those sounds are homogeneous to each other whose place of articulation and effort of articulation in this case the internal effort ābhyantaraprayatna is similar to each other. They are called savarṇa except when this happens in the case of vowels and consonants.

Now let us study which sounds are savarṇas. So, take for instance the vowels first let us look at the vowel a. So, 6 hrasva of a 6 dīrgha varieties of a and 6 pluta varieties of a all these 18 varieties all these 3 sets have similar sthāna namely kaṇṭha or velum and similar ābhyantaraprayatna namely vivṛta. So now, they are to be termed savarṇa with each other they are homogeneous sounds of each other.

Similarly, if we look at 6 hrasva i 6 dīrgha ī and 6 pluta i all these 3 sets they have same sthāna that is tālu and same ābhyantaraprayatna namely vivṛta. So now, all these 18 they are to be termed savarṇa of each other homogeneous of each other. Similarly, 6 hrasva 6 dīrgha and 6 pluta varieties of u all these 3 sets they have similar sthāna namely oṣṭhau or lips and they have similar ābhyantaraprayatna namely vivṛta and therefore now they are to be termed as savarṇa following a 1.1.9 as well as 10. Here there is no question of 10 arising because these are all vowels.

Similarly, 6 hrasva and 6 dīrgha and 6 pluta all these 3 sets have similar sthāna namely mūrdhan roof of the oral cavity and similar ābhyantaraprayatna namely vivṛta and therefore these 18 sounds they are to be termed as savarṇa or homogeneous of each other. Similarly, 6 hrasva varieties of 1 and 6 pluta varieties of 1 all these sets they have similar sthāna namely danta and similar ābhyantaraprayatna namely vivṛta. And therefore, these 12 varieties they are to be termed savarṇa or homogeneous of each other.

Similarly, 6 dīrgha varieties of e and 6 pluta varieties of e these sets also have similar sthāna namely kaṇṭhatālu and similar ābhyantaraprayatna namely vivṛta and therefore they are to be termed as savarṇa homogeneous of each other. Similarly, 6 dīrgha varieties of ai and 6 pluta varieties of ai all these sets have similar sthāna namely kaṇṭhatālu and similar ābhyantaraprayatna namely vivṛta and therefore they are to be termed as savarṇa or homogeneous of each other.

Same thing happens with o as well 6 dīrgha varieties of o and 6 pluta varieties of o, all these dīrgha and pluta varieties have similar sthāna namely kaṇṭhoṣṭhau and kaṇṭha and oṣṭhau ābhyantaraprayatna is vivṛta; therefore, these 12 varieties are called savarṇa with each other. Similarly, we have 6 dīrgha varieties of au and 6 pluta varieties of au all these sets they have similar sthāna namely kaṇṭhoṣṭhau kaṇṭha and oṣṭhau and similar ābhyantaraprayatna namely vivṛta and therefore, these sounds are to be termed as savarṇa or homogeneous of each other.

Next now the vowels are over we now go to the consonants, remember 1.1.10 says that vowels and consonants cannot be savarṇa. Which assumes that there are some cases where the place of articulation and the ābhyantaraprayatna internal effort of articulation of some consonants and vowels is same similar. But still the sūtra says no they are not to be termed as savarṇa. But within the consonants there are some consonant varieties which can be termed as savarṇa let us see which ones are to be called as savarṇa.

So, there are 2 varieties of y we have noted the nasalized and the non-nasalized, they have similar sthāna namely tālu and similar ābhyantaraprayatna namely iṣatśpṛṣṭa that is slight contact or slight touch of the tongue with the place of articulation and these 2 varieties of y namely y and y they are to be termed as savaṛṇa of each other.

Same is the case with 1 where there are 2 varieties one is nasalized one is nonnasalized 1 and 1 and both of them they have sthāna namely danta and ābhyantaraprayatna is iṣatśpṛṣṭa and so they both can be termed as savarṇa of each other. Now, let us look at the next sound v which has 2 varieties a nasalized one and a nonnasalized one v and v both of them they have the sthāna namely dantoṣṭham danta and oṣṭhau dantoṣṭham danta and oṣṭhau and the ābhyantaraprayatna is iṣatśpṛṣṭa

slight contact or slight touch of the tongue with the place of articulation and therefore both these varieties they are to be termed as savarṇa or homogeneous of each other.

Then we have a peculiar case Pāṇini has mentioned something like ku. Ku stands for k kh g gh and n these are the 5 sounds consonants. They have similar sthāna namely kaṇṭha and similar ābhyantaraprayatna namely śpṛṣṭa or contact or touch of the tongue with the place of articulation and these 5 are to be termed savarṇa of each other and they are referred to as ku.

Similarly, cu namely c ch j jh and ñ they also have similar sthāna namely tālu or palate and the ābhyantaraprayatna of all of them is śpṛṣṭa touch of the tongue with the place of articulation. And therefore, all these 5 they are to be termed savarṇa of each other and they are also referred to as cu.

The next set of sounds is tu namely t th d dh and n, they have similar sthana namely murdhan or roof of the oral cavity and similar abhyantaraprayatna namely spṛṣṭa or contact or touch of the tongue with the place of articulation. And therefore, now these 5 they are also to be termed savarṇa of each other and they are called tu.

The next set of sounds is t th d dh n they are called tu, these 5 sounds namely t th d dh and n they have similar sthāna namely danta and similar ābhyantaraprayatna namely śpṛṣṭa or contact or touch of the tongue with the place of articulation. So now, they are to be termed as savarṇa homogeneous of each other and these 5 they are referred to by the word tu.

Now, there is a set of sounds which is called pu this consists of 5 sounds p ph b bh and m these 5 sounds have similar sthāna namely oṣṭhau or lips and the ābhyantaraprayatna is śpṛṣṭa contact or touch of the tongue with the place of articulation. Therefore, now these 5 are to be termed as savaṛṇa or homogeneous sounds of each other and they are termed as pu.

So, these class consonants ku cu tu tu and pu this is how they are referred to they are savarṇa of the consonants belonging to that respective class, because of these features. Now we can call them as savarṇa of each other. It is also equally important to note down which sounds are not savarṇa which sounds are not to be called as savarṇa of each other. After having seen which sounds are savarṇa it is equally important to note which sounds are not termed as savarṇa using the 2 definitions provided by the grammar of Pāṇini namely 1.1.9 tulyāsyaprayatnaṁ savarṇam and nājjhalau 1.1.10.

Now, here are the sounds which are not to be termed as savarṇa of each other, they are first of all a and h a is a vowel h is a consonant, a is ac h is hal. Even if they share the sthāna namely kaṇṭha and the ābhyantaraprayatna namely vivṛta or open they are not to be termed as savarṇa following A 1.1.10 because a is a vowel and h is a consonant nājjhalau they are not to be termed as savarṇa.

The next set of sounds which are not to be termed as savarṇa is i and ś i is a vowel ac ś is a consonant hal. And they are not to be termed as savarṇa even if they share the sthāna and ābhyantaraprayatna. The sthāna of i and ś is tālu and the ābhyantaraprayatna of i and ś is vivṛta and still they are not to be termed as savarṇa following 1.1.10 which says that a vowel and the consonant cannot be termed as savarṇa even if their place of articulation and the effort of articulation is the same or similar. Because i is a vowel or ac and ś is a consonant or hal application of 1.1.10 is done and that is why they are not termed as savarṇa of each other.

Similarly, r and s they are also not to be termed as savarṇa, even if they share the sthāna namely mūrdhan or roof of the oral cavity and the ābhyantaraprayatna namely vivṛta or open. The reason being that r is a vowel and s is a consonant r is ac and s is consonant following 1.1.10 nājjhalau they are not to be termed as savarṇa.

Next l and s they are also not to be termed a savarṇa, why even if they share the sthāna namely danta and the ābhyantaraprayatna namely vivṛta or open they are still not to be termed as savarṇa, because l is a vowel ac and s is a consonant namely hal following 1.1.10 which is nājjhalau these 2 sounds are not called as savarṇa.

So, to summarize we can say that any sound which has the similar place of articulation and the similar effort of articulation namely the ābhyantara one internal one can be called as savarṇa of another sound by default. Now for the system of Pāṇini the consonants and vowels they need not be cannot be termed as savarṇa and therefore, by making an explicit rule Pāṇini prohibits the term savarṇa to a consonant and the vowel.

They do not have this particular relationship this is a systemic need of Pāṇinian grammar. Now after having studied which sounds are termed savarṇa and which sounds are not savarṇa. Let us see what is the use of the term savarṇa what is Pāṇini going to do with this term savarṇa. So, we know that sounds have features and there is some commonality between these features and using this commonality Pāṇini has designed the term savarṇa by which one particular set of sound can be assigned a super feature called savarṇa.

Now, what is the use of this super feature and that is what we are going to study now. Once the sounds are termed savarṇa with reference to each other one sound can be mentioned in an

enunciation only one sound can be mentioned in the initial enunciation and it can be said to represent the remaining savarṇa sounds this is what Pāṇini does. Now after having studied which sounds are savarṇa and witch sounds are not savarṇa let us study what is the use of the term savarṇa.

Once the sounds are termed savarṇa with reference to each other one sound can be mentioned in an enunciation, one sound can be mentioned in the initial enunciation and then it can be said to represent the remaining savarṇa sounds. This is how the system will be built and this is what Pāṇini does in mentioning the sounds in the 14 pratyāhārasūtras that we have already studied. When we studied the itsaṁjñā by 1.1.69 Pāṇini says that these sounds which are mentioned in the 14 pratyāhārasūtras namely a i u ņ etcetera and ku cu ṭu tu and pu they stand for their savarṇa sounds that is all.

This is how Pāṇini achieves brevity first of all by assigning the features to sounds in terms of the place of articulation and the effort of articulation and the length etcetera. And then creating another super feature in terms of the savarṇa Pāṇini mentions only one of the savarṇa in the pratyāhārasūtras and then says that this one sound represents all it is savarņa this is how he achieves the brevity. So, here is an example also the grammatical operations that should be stated with reference to a particular set of sounds which are savarna this is how the term savarna is used, that grammatical operations are also stated with reference to this super feature. So, now Pāṇini uses only one sound and uses 1.1.69 to state what is needed. He uses for example, the word asya which is the 6 slash 1 of a as the substituent for example in 7.4.32. Now by 1.1.69 this means that the substitution stated by 7.4.32 is applicable to all 18 varieties of a which are savarna of a and so the substitution ī as is visible over here which substitutes a here which is the short a and śukla therefore becomes suklī. Similarly, can be applied to mālā where ā which is a long variety of a gets substituted by ī the substitute stated in this 7.4.32. So, this a stands for short variety of a as well as long variety of a namely \(\bar{a}\) as well as pluta variety of a which is the third variety of a. So, this a stands for all its 18 varieties this is how Pāṇini uses the term savarṇa when stating a grammatical operation to account for the linguistic usage.

To summarize we can say that the features of sounds noted by Pāṇini serve the purpose of brevity in the system of grammar. The grammarian can mention a big set of sounds briefly by the mention of one of them and then later on can use the term savarṇa which is based on these features to indicate all of them and to describe a particular grammatical operation based on these features. So, rules sūtras can be based on these features to account for the overall linguistic usage.

I thank you for your attention and now we shall study the next function in the next lecture. Thank you all.